Kayaking and canoeing tips, safety and common-sense advice

Glossary of paddling terms

Boat Ramp: A public launch ramp that is available for power boats, canoes and kayaks.

Bony: Rocky and scratchy conditions due to low water.

Bow and stern: The front and back ends of a boat, respectively.

Canoe launch: A less developed public launch site that is suitable for launching canoes and kayaks by hand.

Cubic feet per second (cfs): River flow is measured as the number of cubic feet of water flowing past a certain point each second. River gauges provide online readings updated every 15 minutes, with graphs showing trends. Go to: https://snoflo.org/ for real time water levels.

Eddy: A back current along the edge of a river. Eddies are a good place to pull off to the side, out of the main current, to land or to rest and re-group. Be careful as you cross into an eddy as your boat may become momentarily unstable.

Flatwater: A section of river with no current, usually due to impounded water behind a dam.

Impoundment or reservoir: A body of flatwater held behind a dam.

Lee: Sheltered or away from the wind. By staying close to the lee shore, you'll be exposed to less wind and paddling will be easier.

Painter: A length of rope (known as a line) tied to the bow or stern.

PFD: Personal Flotation device: The Coast Guard has shifted back to calling them life jackets. No matter the name, they only work if you wear them.

Portage: Derived from French word meaning to carry." A portage is the trail you walk to go around an obstruction (like a dam) or from one water body to another. It's also a verb that means to carry your boat and gear.

Quickwater: Stretches of river with enough current to carry the boat and create ripples, but not as steep or rough as rapids. Generally, you can navigate quickwater by following the main current. Also known as Class I whitewater.

River left and river right: Refers to the river as you face downstream. As in, "Watch for the big rock on river left."

Rock garden: A section of river with many partially submerged rocks. It's usually applied to areas with swift current where strong paddling skills are needed to dodge rocks.

Strainer: A fallen tree, partially submerged in the current, so the limbs and branches "strain" the water. Strainers are extremely dangerous. People and boats pushed by current into a strainer put themselves and rescuers in extreme danger!

Sweep: An experienced paddler who remains the last boat in a group. He or she makes sure nobody is left behind and is ready to help with rescues.

USGS: Stands for the Unite States Geological Survey. This agency and the United States Army Corps of Engineers maintain a network of river gauges to register water level and flow data online every 15 minutes. These readings are useful to decide whether the river flow is too low, too high or just right for your skills and equipment.

Whitewater: Stretches of river with enough flow and rocks to create breaking waves of water. (For more information go to: www.American-Whitewater.org.

River classifications:

Whitewater is rated on a scale of increasing difficulty from Class 1 to Class 6. This classification system provides a useful guide to the technical difficulty of a river, but there are so many other variables that can have a huge impact on the difficulty or danger of a river:

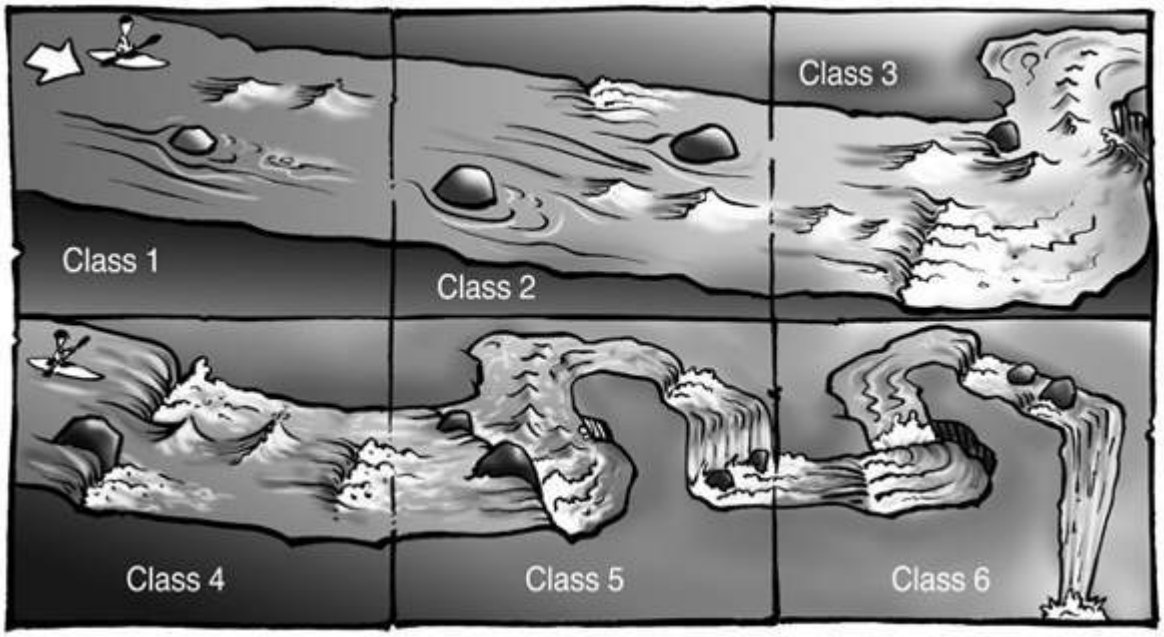
- Is it continuous in nature or does it have drop offs and pools?
- Is the water warm or freezing?
- How remote is the run and how far away is help?
- Can you walk out if need be, or is it in a canyon?
- If portaging isn't an option for all rapids, are you committed to running everything?

As you can see, there can be massive differences between two rivers of the same class. For this reason, it's your responsibility to find out more about any river you're considering paddling. For many areas, there are guidebooks with detailed descriptions and images of the rivers, and more of these are available each year.

Chemung River Friends has an excellent waterproof river map/guide about the Chemung and Susquehanna Rivers with all the info you need for a safe and fun paddle trip. Cost $40. To

purchase, contact Chemung River Friends riverfriends@stny.rr.com or 607-846-2242. It's always a good idea to pick one of these up. You can never be too well informed.

The classification system is still very useful for giving a river a general level of difficulty. This system is not an exact science, and that it's open to interpretation. Here are some general guidelines for the whitewater classification system:



Class 1 (Easy): Fast-moving current with small waves and few obstructions that are easily avoided. Low risk. Easy self-rescue.

Class 2 (Novice): Straightforward rapids with wide-open channels that are evident without scouting. Occasional maneuvering is required. Trained paddlers will easily avoid any rocks or medium-sized waves. Swimmers are seldom injured.

Class 3 (Intermediate): Rapids with moderate, irregular waves, strong eddies and currents. Complex maneuvers and good boat control are required. Major hazards are easily avoided. Scouting is recommended for inexperienced paddlers. Self-rescue is usually easy and injuries to swimmers are rare.

Class 4 (Advanced): Powerful, turbulent, and predictable rapids with large, unavoidable waves and holes or constricted passages. Fast and reliable eddy turns and precise boat handling are needed to navigate safely through. Scouting is necessary, and rapids may require "must-make" moves above dangerous hazards. Strong Eskimo roll highly recommended, as there is a moderate to high risk of injury to swimmers. Self-rescue is difficult, so skilled group assistance often needed.

Class 5 (Expert): Extremely long, obstructed, or violent rapids with exposure to substantial risk. Expect large, unavoidable waves and holes, or steep, congested chutes. Eddies may be small, turbulent, difficult to reach, or non-existent. Reliable Eskimo roll, proper equipment, extensive experience, high level of fitness and practiced rescue skills essential for survival. Scouting highly recommended but may be difficult. Swims are very dangerous, and rescues are difficult.

Class 6 (Extreme): These runs exemplify the boundaries of difficulty, unpredictability and danger, and have almost never been attempted, if ever. The consequences of errors are very severe, and rescue may be impossible. Only expert teams with ideal conditions and extensive safety systems should ever consider these rapids.

The 3 Golden Rules of Kayaking

These three rules, when followed, will let you paddle the most efficiently and help keep you safe on the water:

1. Use the power of your body's torso rotation for all your strokes.
2. Choose an appropriate paddling location.
3. Have a plan if you capsize.

The power of torso rotation: Use your whole upper body for your strokes and not just using the muscles in your arms. You need to twist at the waist when you take a stroke, rather than just reaching and pulling with your arms. When taking a forward stroke your reach forward shouldn't just involve your arms. Use your whole upper body. When taking a stroke on the right side of the boat, reach forward with not only your hands, but with your right shoulder, turning my body to the left. Then plant the blade fully in the water. And when you pull on that stroke, you pull with my arms and my whole upper body.

Appropriate paddling location for your skill level: The ideal kayaking environment has protection from wind and waves, a good access point for launching and landing, lots of places to easily go ashore, and minimal motorized boat traffic. Look for calm bays, quiet lakes, and riverways without noticeable current. If you venture into water that isn't protected from wind and waves, and/or if you travel further from shore than you can comfortably swim, you're entering a new world. A world in which you'll need to protect yourself and the people you're paddling with by taking a sea kayaking course. Which teaches you valuable exposed water rescue skills.

Have a plan that you're confident being able to execute in the case that you capsize: You need to know if you can reenter the kayak from the water. The only way to know this is by practicing it before heading out. If you find you're unable to reenter the kayak, or you just don't

have any desire to try, it doesn't mean you can't enjoy the wonders of kayaking. It just means that you should always stay close enough to shore so that you can comfortably swim to land. One thing that I can tell you is that reentering a sit-on-top kayak is a lot easier than reentering a sit-inside kayak, because it won't swamp. Sit-on-top kayaks are more versatile for the average recreational kayaker.

Staying visible and safe

In order to be visible while kayaking, you must stand out. But many bright colors don't have the visibility you'd think. Learn which colors do stand out and will keep you visible on the water. Read this first-person account for more information.

It was a beautiful North Pacific afternoon off the coast of Kodiak Island. I had paddled out from a beach below my house to a giant headland jutting up above an island about five miles from shore. I was rendezvousing with paddling friends at the base of a two-hundred-foot sheer wall that dominated the SE end of the island. We shared an afternoon's paddle by cruising along the outer coastline and casually paddling back to town via the island's northern point.

The next day I was talking with a fellow paddler who had not made the crossing. Instead he had gone to the top of the flat-topped mountain that forms the backdrop of the City of Kodiak, a 1,600' mound of grass and scrub brush-covered shale. With binoculars he had picked out our kayak's flotilla five miles offshore. "So was that you out at Long Island yesterday, about 2 o'clock?" he asked. "Yup," I said, and named the fivesome in the group. "Couldn't have been you then," he said. "I only saw two boats, your yellow Nicky and Pete's Easy Rider." I assured him that three other kayaks, all near each other were there as well. He insisted that with his binoculars he could clearly see only two boats.

We verified times and landmarks and, sure enough, there had been five kayaks, in a close group, bows pointing inward towards each other like the spokes on a wagon wheel. Yet, he saw only two kayaks. Why? Besides our colorful craft, there was a red kayak, and two dark blue boats. Obviously the red and blue boats did not stand out against the glare, the distance and whatever else was affecting the color spectrum over water that day.

On land, it's pretty much a given that International Orange is the number one color for visibility. In bright sunlight, international orange is the highest visible color to the human eye.

A close second is bright yellow, electric or neon yellow. It is the visible color choice for diffused sunlight on a foggy or hazy day. It's also good during those dawn-dusk times of day. Robin's egg blue is one of the best colors to see, especially from the air, because there is nothing in nature that is that color and larger than a robin's egg, and it really stands out.

In order to be visible, you must stand out. Pretty obvious but tell that to the paddler who buys the bright red PFD! Sure, its bright and noticeable…a hundred thousand fire trucks can't be wrong! Still, once out on the ocean, some lighting dynamics set in and those red wavelengths peter out quickly. Add some diffused light or shadows and that red seems to turn black.

Those who have gel coated/composite kayaks typically opt for various colored decks while accepting the common hull colors of white or ivory. From a thousand feet in the air, when overturned from a capsize, that tiny 15' hull looks very similar to the white crest line on a windblown wave.

Imagine how hard it would be to spot a capsized kayaker in the dark, slate-colored waters wearing a green or blue life jacket? My recommendation is to get whatever color you want for your boat but wear a bright yellow life jacket! If you must opt for style or vanity, at least go with a strobe or other light on your PFD.

In addition to your boat and PFD, consider buying gear with bright colors, too. Think survival; think signal. That large stuff sack you bought is handy, but couldn't it be blaze orange or yellow …or robin's egg blue and carry just as much gear? What a handy flagging signal or ground sign it could make.

Same thing goes for tents, or tent flies. OK, so you don't want to advertise your location on the beach, that's understandable. However, if you are prone to go beyond the edge more than others, consider bright colors. If not the tent, the fly. If not the fly, a ground cloth.

Being aware of the benefits of different colors can be useful when planning group trips - let the bright colors start and end the procession. If you are filing a float plan, make sure that you clearly describe your boat colors ---and PFD's. Kayaking is meant to be fun…and colorful! Safe paddling.

Tom Watson, an avid sea kayaker and freelance writer is also the author of "How to Think Like A Survivor" to be released by Creative Publishing, Int'l this fall.

How to edge and balance a kayak

Edging is when you tilt your kayak slightly to one side. The key is to hold it firmly at a balance point that enhances control of the boat and lets you do things like carve a more precise turn or turn more quickly.

By changing how you edge and balance your boat you can increase your stability and adaptability. Using your weight to balance has many benefits that can help you stay safer and potentially drier on your next paddling trip.

Historically, to balance our kayak we have been taught to lift one side of our boat with our outside knee. By driving that outside knee up, this changes your boat from its primary stability to its secondary stability. Secondary stability is important because it increases maneuverability and, in some cases, overall stability. But just because this is how it has been taught in the past, it may not still be the best way to control and balance your boat.

Boat Control

By using your weight instead of your legs, you free your legs from being the lone factor to being an aid to balance. When you use your outside knee, you are limiting the movement that both your outside knee and your inside knee can do. If you move either knee, your edging and balance can suffer, while if you are using solely your weight to stay in balance on edge, you have both legs to increase your maneuverability and adaptability.

Imagine putting your boat on edge to make a turn in any sort of waves. Using your knees to balance by driving the outside up will inhibit your turn because you will need both your knees to maintain balance because of the waves, which in turn would take you off edge or cause a surprise swim. In contrast to this method, using your weight to edge and balance would free your knees and waist to be dynamic and adaptable to these oncoming waves, all while keeping you on edge in your secondary stability.

Having this increased control of your boat will also help with your hip snaps. Because you aren't dependent on muscle tensions to stay upright but instead are using weight and gravity to do this task, your hip snaps will benefit. If you lift one knee right now, you'll notice that not only are your leg muscles engaged, but your hip flexors, abs, obliques and lower back are triggered as well. Having all these muscles firing inhibits future movements because your balance is already dependent on all these muscles being engaged. Now lean over to the side without moving your legs. Notice that your abs are engaged but your legs, hips, sides and back are unused on both sides. By having these muscles open to maneuverability helps you be versatile in whatever environment you find yourself paddling in.
Being comfortable on edge without sculling or bracing is something everyone should practice. If you are comfortable without the crutches of sculling or bracing, those individual skills will increase. By finding both the edge and balance of your tipping point on your "on" and "off"

side you will be able to increase control when turbulence or the unexpected hit. By shifting your weight and not only your legs, you will become more familiar with the limits of your boat- which in turn lets you push it to the limit with ease.

What Happens if I Flip?

Paddlers often say that we're all "between swims."

Flipping is always a possibility, and if you end up in the water paddlers call that swimming. There are many ways to get back in a kayak. With practice, you can do some of these on your own, and some require the help of a buddy.

To master some of the more advanced techniques, especially for sit-inside kayaks, getting some professional instruction is a great idea or watch on-line videos demonstrating the techniques.

Getting back on a sit-on-top kayak is the simplest. Be sure your kayak floating right side up. If it's not, turn it over by pushing on one side and pulling on the other. Next, if you're paddling with a buddy ask them to stabilize your boat. Even if your friend isn't right there, don't worry. You should still be able to climb back aboard your kayak by yourself, especially if you've practiced the technique before.

Swim to the back of you kayak and pull your chest on top of the boat. It helps to start with your legs behind you at the surface, then kick with your legs as if you're getting out of a swimming pool. Slide your body toward the cockpit by pulling yourself towards it with your arms while staying low and allowing your legs to hang off either side for stability. Once you reach the cockpit, sit up straddling the boat and swing your legs through the water until you can sit low in the seat and pull your feet on top. Grab your paddle, and you're ready to go.

Fishing from a kayak

People have always found a way to wet a line, so in that regard, fishing from a kayak is the same as fishing from any watercraft. However, the challenges associated with a craft is what adds a touch of adventure to this sacred outdoor ritual.

Kayaks have been used for fishing for several millennia. By the time the Russian fur hunters overran the western coastal areas of Alaska, courageous kayakers were running down and slewing whales with poison-tipped harpoons and arrows. Now there's a 'catch of the day'!

Fishing is possible from any kayak although narrower, sleeker boats and most surf skis are just too nimble for any serious attempts. The sit-on types have flaunted their use as stable fishing platforms since they were first introduced a few decades ago.

Today, some come with fishing contraptions installed from bow to stern. These and the wider, more stable "recreational" kayaks tout fishing as one of their main uses clearly marketing to this popular activity. For those who fish from sit-ons, and to a lesser degree, the wider, big-cockpit designed rec' boats, fishing is like fishing from a canoe or small skiff. The game gets a little more exciting when you fish from a conventional sea kayak.

The paddler's inherent ability to steady the kayak throughout the various activities associated with fishing underlies the entire process. You must feel at one with your kayak as you cast, retrieve, release or keep fish usually with both hands busily attending to fishing instead of paddling.

Sitting right in the water, elbows only inches above the surface, requires a few minor adjustments to any casting from land. Even fly fisherpersons have adapted ways to accent their casts from a kayak.

A hazard that kayakers face is hooking the lure or fly onto the back deck or rudder. It is nearly impossible to remove a barbed hook from the tightly woven deck lines used on most kayaks today. It's either get an assist from a fellow paddler or head back to shore (the third option is to break the line and get a new lure!)

That brings up the issue of fishing rod length. Some suggest a short rod that is basically an extension of hand jigging (a form preferred by many). While the short rod keeps all the action within a few short feet of the cockpit, it is way too short if a larger catch decides to run -- as is often the case with most game fish. Unless your rod tip can be swung completely around the kayak, beyond bow and stern, a fish cutting right angle escape routes under your cockpit will take your rod with it. Swinging a complete circle around your kayak assures you of being able to keep control of your catch no matter where it runs. I know some kayakers who are so good at 360-degree rod handling that they can even make pin-point casts backwards, over their head.

Lacking a working deck or bench or over generous storage space, a sea kayak has limiting room for any kind of tackle box bigger than a carton of cigars. Most of us who kayak fish use tiny lure boxes that contain a half dozen pieces stored in tiny compartments. Most of the lure preparation is done using the spray skirt as a workbench.

The real challenge of kayak fishing is what to do once you've caught the fish. Being so close to the water you must remember to keep the rod tip especially high, almost vertical as you bring your catch up to the side of the boat. Once within such proximity to you, if you keep its head underwater, you can determine whether it's a keeper or not.

There are three ways to land a fish from a kayak. The first is with a landing net, a tried and true method known to all. Once the fish is alongside the boat, grab your landing net that has been secured for easy removal from a bungee on your deck. Scoop up the fish, remove the lure and put your catch on your stringer (practice being ambidextrous).

The second method utilizes the stringer without the landing net. I have found that the best stringer for kayak fishing is the chain stringer with the shower curtain hooks attached to a light chain. One end is secured to your boat; the other end with the series of hooks is laid out on your deck. The end hook, nearest you, is open and ready to go. Once the fish is brought alongside the boat, the free hand is used to grab the open hook on the stringer. That end is hooked through the end of fish's lower jaw. Tension is applied as you put down your fishing rod and quickly snap the hook closed. You can then drop the fish back into the water.

The third method of retrieval is a quick action move to save a fish precariously close to dropping off your lure. I hooked into a beautiful silver salmon that was barely attached by the tip of one of the treble hooks onto its boney lower lip. I let the salmon calm down for a second and then quickly hoisted the fish out of the water and up into the cockpit in one fluid motion. The instant it cleared the coaming, the fish broke loose and fell into the cockpit, right between my legs. In most other cases, dropping the fish into the boat, sans lure, is an acceptable, but messy way of landing your catch.

Safe paddling and fishing.

Paddling alone – safe or not?

By Wayne Horodowich

I realize everyone has his or her own perspective on just about every issue. One of the prevailing opinions I don't agree with is "never paddle alone". Every time I hear an instructor tell their students "never paddle alone" I am hoping they would add a condition onto their statement but most of the time the warning just stands alone.

I believe a blanket statement discouraging paddling alone is a disservice to paddlers. I love paddling alone. I know of a lot of kayakers that paddle alone. In fact, I encourage paddlers to learn to paddle alone but I add conditions to my statement. I am not suggesting that you take a rank beginner and say, "go and paddle on your own". However, I do tell my beginning students that they should not start paddling alone until they can meet a list of conditions. By taking this approach I am educating my students on what they need to know before they undertake an endeavor rather than eliminating even the possibility. To tell paddlers "just say no" to paddling alone is not being proactive.

I believe there are excellent reasons why a kayaker should work towards paddling alone. One of the basic tenets I teach to guides and instructors is, "the strength of the group is based upon the strengths of the individuals in the group." By paddling alone, I have learned self-sufficiency. I know every aspect of the paddle is my responsibility. If anything goes wrong, I will be responsible for dealing with it.

The greatest reward of solo paddling is not a measurable skill. It is a change in attitude. The increase in self-confidence alone is worth it. I believe that solo paddlers have a greater sense of awareness.

Give me a paddling partner with greater awareness and higher self-confidence any day of the week. However, they will not get that same awareness and self-confidence if they always paddle with me or in a group.

What You Should Know

This leads me to listing what I think a paddler should know, be able to do and need to have if they wish to paddle alone. Dressing for immersion, always wearing your PFD, having your own paddle float and pump are givens whenever you get on the water whether alone or in a group.

Before you paddle alone be sure you have the following:

- Reliable self-recovery skills
- Solo launching and landing skills
- Directional awareness (navigation)
- Spare paddle
- Signaling kit (with vhf radio &/or cell phone)
- Repair kit
- Familiarity with the route (when beginning solo paddling)
- Knowledge of expected weather conditions (listened to most recent marine forecast)
- Float plan filed with friends (including a call when off the water.)

The equipment suggested is equipment you will probably be carrying with you even on group trips. The skills can be learned and practiced on group trips. Once you feel you are ready then start with a half-day trip in an area that you have paddled before.

As your comfort zone increases and your skills become second nature your boundaries will extend farther and farther.

Be Aware of the Risks

Before you jump in your kayak be fully aware of the risks and potential consequences of paddling solo.

Alone means alone. If something happens you need to have the skills and attitude to deal with it. If you go out with the belief "If I get into trouble, I will just call for help", then you are missing the point. Rarely should there ever be an instance where you need to call for help. Being prepared and being aware of the environment eliminates most mistakes made by the sea kayakers who do end up calling for help.

The riskiest part of paddling alone is the sudden illness that can occur (heart attack, seizure, blackout, etc...) which could render you helpless and unable to make the call. The risks can be higher if you are alone.

Keep in mind that paddling alone can be peaceful but there are times it can be lonely. The other side of the coin is the rewards from paddling alone. There is a great feeling of accomplishment. You are learning to rely on yourself, to trust yourself and your decisions. The motivation to learn and practice is greater because the potential consequences seem higher. The peace and quiet when paddling alone is a wonderful way to center yourself.

Caution about being too confident when paddling in groups

One last consideration is the false sense of security that one may have when paddling in a group. Just because there is a group does not mean there is safety in numbers

In the event you capsize while in the group are you sure those in the group will come to your aid? If they don't help because of inadequate skill level or anxiety in difficult conditions your own self-sufficiency will be your salvation. It can be said that a kayaking group is a collection of solo paddlers. I could not have gotten to my current skill and experience level if I only paddled with others. I am also willing to take the consequences of paddling alone. I trust my judgment and my skills, which have both been increased by paddling alone.

Therefore, I say, "before you paddle alone, it would be in your best interest to meet the criteria mentioned above".

Wayne Horodowich founder of The University of Sea Kayaking (USK), writes monthly articles for the USK web site. In addition, Wayne has produced the popular "In Depth" Instructional Video Series for Sea Kayaking.

How to paddle into old age

Admittedly, there are a few downsides to be a "senior citizen": my balance (which never was very good) has become "less good". Nonetheless, I can still paddle my Bell Yellowstone solo canoe for short distances from the standing position. And my whitewater skills are as sharp as ever. But carrying heavy stuff on big, bad portages is another matter. When I was 60 I could single-handedly shoulder my 75 pound Royalex, Dagger Venture canoe--from my off-side! No longer. But I can do it alone from my "on-side" if you bet me enough money!

Getting old doesn't have to shut down your trips into the wild outdoors. I've learned that even the most rugged trips are possible at my age of 77 if I just slow down a bit (heck, I never was very fast!) and take it easy.

When I was younger, 25-plus- mile days on a wild northern river were the norm. Now, 15 miles are plenty and 10 are better. And layover days are just delightful! My canoes are much lighter now (28, 35 and 42 pounds) for my three solo's (two Bell Yellowstone solo's and a Northstar Phoenix), compared to the 75 pounders of yore.

I now consider any canoe that weighs over 45 pounds, too heavy. My kit, on the other hand, has gained some weight, largely in "comfort" items that I feel I can't go without. The new editions include a roomier tent, a thick, cushy sleeping pad, a folding stool with backrest, a nylon rain tarp with full bug-screen, better food and a satellite phone and SPOT for emergencies only.

My age is not a paddling stopper! My experience suggests that these are the real stoppers:

1. **A HEAVY OUTFIT**: Weight is a killer, more so, if you've never learned to use a tumpline. A tumpline is a strap attached at both ends to a sack, backpack or other

luggage and used to carry the object by placing the strap over the top of the head. This utilizes the spine rather than the shoulders as standard backpack straps.
a tumpline. It stabilizes the load, especially on uphill grades. It holds the load tight against your back (no wobbling) so that aging bodies, which have lost some of their flexibility and balance, can succeed. The effect is immediate and reassuring. I can confidently carry a 75-pound pack up a tortuous grade IF I use a tumpline (yes, I have to go s.l.o.w, but those who've tripped with me know I ALWAYS go slow!). But give me a 75-pound canoe on shoulder pads and I'll be lucky to make 300 yards without setting it down on the nearest boulder. Tumplines are magical; believe it!

2. **LOOSE STUFF:** Carrying a lot of loose stuff that's hanging and dangling, will play havoc with your balance--which, as stated--is one of the first things that go with age. Portages will go much easier if everything is confined to packs.

3. **BE A SKILLED PADDLER:** Most Boundary Waters paddlers have minimal canoeing skills, or more accurately, none. They can go straight and turn right and left, that's about all. Put 'em on a river with rapids and they'll crash and burn; run 'em down a twisting stream and they'll wear themselves out in the turns. The point is that if you diversify your skills (know whitewater, racing and freestyle procedures) you'll travel more efficiently (and conserve energy) on all types of water, and you'll be in control when demanding conditions arise. Muscles deteriorate with age, but polished techniques don't! A competent young paddler will be a competent old paddler! "Doing it right" dwarfs' big muscles and bad technique. Skill trumps age, size, sex...and gear!

4. **BE A POLISHED CAMPER:** Comfort counts, and "more comfort" counts as one gets older. Eating bad food or suffering from the cold because you can't build a campfire won't make you a happy camper. Horace Kephart, author of "Woodcraft and Camping" wrote: "I come to the woods not to rough it, but to smooth it". Ditto! The better your camping skills, the more comfortable you will be and the longer you will want to continue camping. An interviewer once asked me: "Cliff, when was the last time you were uncomfortable on a camping trip?" I couldn't remember a single time. I don't think the guy believed me.

Ironically, years spent afield, or the number of days one has canoed or camped out, seldom translates into camping competence. There's a right and wrong way, an easy and a hard way to do things. You won't learn what's best by doing it wrong year after year and shutting your mind to the advice of experts. Books, videos and attendance at outdoor seminars will shorten the learning curve. You can learn the ropes very quickly, if you want to learn! Problem is, most people--including hunters and anglers who spend lots of time in the outdoors--DON'T!

5. **LIVE FOR NOW:** Five years ago, I had a heart attack and was out-of-commission (meaning no canoeing or camping trips) for several months. The following year, I paddled 150 miles across the Everglades with friends. No problems. Earlier this year, I went to see my cardiologist, who began with, "How are you feeling, Cliff?" I replied: "Well, I was great, doc until I got up this morning and realized I had to come and see you. I forgot I had a heart attack!"

The good doctor smiled broadly and said: "Cliff, you're my hero! Keep following your passion...we didn't save your life so you could sit around and watch TV."

I couldn't have been prouder!

So, my advice to all, who like me, are getting up in years is: Stop looking in the mirror--the wrinkles won't go away! But your passion for canoeing and camping won't wane--that is, if you are a skilled paddler and camper--and of course, if you don't have a debilitating condition that precludes the light rigors associated with the wild outdoors.

What you need to know about the kayak paddle

The first paddle was probably created to move a raft across water so deep a push pole couldn't reach the bottom. As boats evolved into different craft so too did paddles.

Many early Pacific Rim kayakers used a single bladed paddle - a more efficient design when kneeling in the cockpit straddling a bedroll as they did. Others, across the entire Arctic region all the way to Greenland also created double bladed paddles to propel their kayaks. Modern paddlers can still choose that traditional style as well as several other shapes that have evolved with technology and paddling styles. Each is designed to provide a more efficient and powerful means of propelling a kayak through the water.

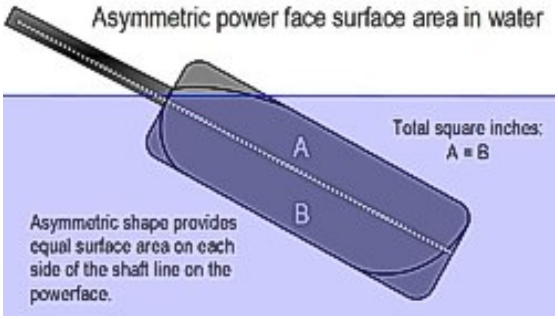
What is the optimum shape for a kayak paddle?

Today's market offerings include everything from long flat panels to odd shapes with flowing curves. Several factors affect the ultimate shape of a paddle offered by any of the dozens of manufacturers around the world. Opinions as to that ultimate shape tend to be based on a culmination of collective and interrelated aspects of paddle function and design.

Most basic paddle shapes are a variation/combination of the above forms. Flats can include a full or partial curve; asymmetric blades may add a "spoon" to cross-section. Wings are severely spooned. Aleutian paddle blades are ribbed; Greenland are not.

Symmetric vs. Asymmetric: Envision an imaginary line down the center of the paddle shaft extending down through the middle of the blade, from heel to tip. If the blade sections on both sides of the line are an exact mirror image of the other, the blade is symmetric - two equal halves. Conversely, if one side of the line has a larger surface area than the other, it's an asymmetric blade.

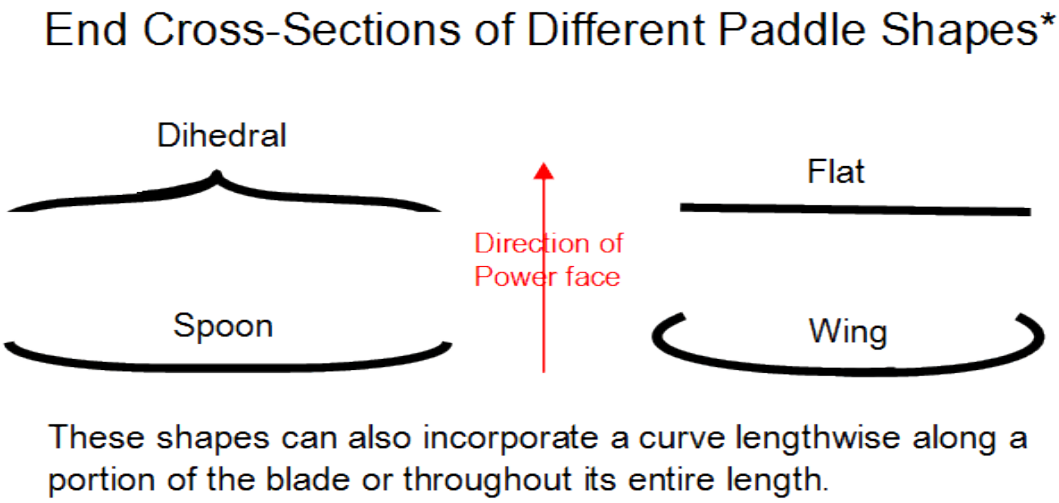
Symmetric blades tend to be the choice of whitewater paddlers as well as those who prefer a high stroke while touring. Other design factors (keep on reading) will affect performance and power issues.



Those who tend to use a more leisurely low stroke tend to use the very common asymmetric kayak blade. In fact, it's because of that lower angle to the water that a blade has two different shapes but results in the same overall surface area. When the blade enters the water at the proper angle, the asymmetry enables both halves of the power face to have the same total area of contact with the water.

Width & Length: Basically, a shorter, wider paddle blade is used for more forceful, more powerful strokes – preferred for those who like speed or the critical bite of the paddle when needed quickly. The longer, narrower blade works for slower, easier-paced strokes. The "average" touring paddle blade might be at least 18-20" long and about 6" wide. Typically, those who want speed and quick power might choose the same blade design, only significantly shorter and noticeably wider by several inches.

In both instances cited about, the focus has been solely on the relationship of the total surface area and how it is distributed relative to the shaft line along the length of the power face. But wait, there's still more to consider.



Flat vs. dihedral: A flat paddle blade is exactly that – flat across the surface. It may have a longitudinal curve or slight sweep to the blade, but the surface from edge to edge is flat – usually. An exception is the addition of a rib down the center of an otherwise flat-paneled power face. The rib is there to guide the flow of water towards the outer edges of the blade – while reducing flutter. Some paddle makers also use that rib to add strength to the blade.

If you look from the tip of a paddle back down lengthwise along its power face and notice that both sides angle slightly down and away from the shaft line out towards the outer edges – you are looking at a dihedral blade.

Dihedral paddles have two plane/power faces. This lateral angle – that can vary by manufacturer – is designed to guide the water flow across the surface of the blade. By doing so it can reduce flutter in the paddle by directing that flow along the face to the outer edge. Like flat blades, a dihedral blade may also have a curve along its length.

Curved vs. spooned: Adding a sweep to the paddle blade, either along the axis of the blade (curve) or through the cross-section (spoon) affects the bite a paddle has in the water. The curve is like the shape of a swimmer's hand during the power stroke. The curve is designed to provide an early catch during the beginning of the stroke. Because it's curved, the blade should be pulled from the water early to prevent the curve from lifting water instead of pushing it. The curve can continue throughout the entire blade evenly or can be applied more towards the tip.

A spooned blade is shaped – like a spoon. If a spoon paddle were laid down flat with its power face upward, the lengthwise edge would enable you to add water without it flowing back off as it would on a "curved" blade.

Wing blades: The most recognizable variation of a spoon blade is the "wing" design most often used by racers. Its scoop-like design has a rounded edge that provides lift along the backside – like an airplane's wing. It requires solid torso twist strokes and the path of the blade through the water is angled out away from the boat and longer than the conventional high racing stroke used with other paddles.

Greenland style: These are the long, narrow blades, typically on a shorter, thicker shaft than those found on a "normal" blade. A low-angle stroke style is most often associated with these blades. They aren't as well suited for quick, powerful strokes but rather for more finesse and endurance. A cross-section of both blades reveals a convex form. The Aleutian form differs most noticeably by the addition of a rib along the power face (the Greenland style has a totally flat surface in cross-section).

The right combination: The most commonly available paddle on the market is a combination of most of the features mentioned, modified by each manufacturer to some degree. Referred to as "Euro" style blades, these are most often asymmetric with a degree of curve, sometimes with a slight dihedral built in. Within that general Euro style are variations in width/length/curvature. Conversely, some prefer a flat/curved symmetric blade for their own paddling needs.

A very important factor in the discussion of blade shapes is the use of **proper paddling form** and **stroke execution**. Improper grip or inadequate power may cause a paddle to flutter whereas a good, firm stroke may prevent any paddle from fluttering or twisting. The more a

paddle catches and holds water during the stroke, the more important it maybe to end your stroke sequence with a shorter exit point (to avoid lifting/scooping up water with the blade).

Here are some of the pros, cons and special characteristics of these paddle blade shape variables:

Twist/Flutter: As a paddler begins the stroke, water builds up on the surface, becomes agitated and exerts pressure unevenly across the surface of the blade. The blade begins to twist or flutter as that water flows off the power face, especially as that angle of the blade in the water changes. That flutter/twisting tends to be more prominent in wider blades as they are more responsive to changes in that angle. Adding a rib down the center of a flat blade or making a slight dihedral cross-section is designed to reduce or eliminate this disturbance. A firm and proper stroke style can often reduce or eliminate T/F altogether.

Energy & power: All things being equal, a larger surface is going to push more water. Since a vertical/high stroke generally utilizes a shorter paddle, that blade is normally shorter but wider than are preferred for the longer, touring, horizontal stroke. The need/use of power in the high stroke is more efficiently and effectively achieved with a broader, shorter blade. Flat blades center the power portion of the stroke closer to the paddler's body thereby creating less stress; Curved blades "catch" earlier; providing power sooner Aleutian/Greenland blades reach deep into the water, often below a turbulent surface. They provide a long, continuous stroke resulting in less fatigue than from using bigger blades.

It's not a matter so much of which blade produces more power (a 20"L x 6"W and a 14"L x 8.5"W have nearly the exact same surface area of 120 sq. inches) but how effectively you can draw on that power for acceleration or control and how efficiently you can maintain it. Oftentimes the shorter/wider blades are used with a faster cadence/stroke rate.

Symmetry: Symmetric blades work best with a high, vertical stroke where both power faces attack the water evenly. When paddled at low angles, the disproportion of the blade surface in the water from above and below the shaft line means uneven force and flow of water across the surface.

Asymmetry: The asymmetric blade anticipates that angle and is shaped accordingly – and therefore most often used as the choice of touring paddlers. It, too, can vary in size thereby offering a more powerful face when desired. An asymmetric blade will "catch" the water sooner on the entry phase of a stroke thereby increasing the efficiency of the paddle.

The wing: Almost exclusively used for racing/high performance paddling. It demands a specific form of stroke that requires proper torso twist. Some paddling techniques can be executed with the spoon-shaped wing if the backside of the blade is used. This is common with some highly curved and/or spoon paddles as well.

How it all shape up: It's apparent that there are several factors to consider, based upon differing opinions and preferences, as to what is the "best" paddle shape. Manufacturers vary in offering excellent options within their product line regarding shapes for kayak paddle blades.

As with all gear, your best bet is to attend a demo' day and try out different shapes and sizes - remembering that it's all based upon the presumption that *proper paddling technique* will be your foundation for getting an accurate "feel" for your gear. This overview offers general and basic factors that have gone into designing paddle shapes. Once you have paddle length and shape figured out, you can decide which material you should consider. Many factors come into play there as well. Be safe; Have fun!

Tom Watson is an avid sea kayaker and freelance writer. For more of Tom's paddling tips and gear reviews go to his website: www.wavetameradventures.com He has written 2 books, "Kids Gone Paddlin" and "How to Think Like A Survivor" that are available on Amazon.com.

Kayaking with the Family

One of the best things about kayaking is that it's a healthy and fun activity to share with your whole family. Not only is it a fun physical activity where everyone can expend excess energy, but it's also a wonderful way to connect with the natural world.

Currently of 'nature deficit disorder' due to overexposure to video games, computers and the internet, kayaking can be a welcome outdoor activity that allows all members of the family to connect with each other and with nature. In fact, some researchers, "...theorize that the 'soft fascination' we experience when spending time in nature helps us recover from the mental fatigue caused by periods of overstimulation." (*Yoga International Magazine*)

Perfect for all ages: Since kayaking doesn't require a lot of strength it's the perfect activity for family members of all ages. Children can start riding in your kayak as infants. I've seen many infants perfectly happy riding in the cockpit in front of their parents. Once they are big enough to start paddling their own kayak a children's sit-on-top is a good way to go. Not only are sit-on-tops great for paddling around the lake, but they also make fun platforms from which to jump into the water and swim (always remembering to never dive, but to jump in feet first). They're easy to get back on after a swim and they aren't restrictive which will make children feel at ease.

Infants & children: When dealing with infants and children, as with adults, it's important to take the necessary safety precautions. The first step is to buy a children's or toddler's life jacket that fits properly, and to make sure that the child always wears the life jacket on the water. Infant and child life jackets are available at most good outfitters. Be sure to ask for options and to have the child try it on before you buy. You don't want to buy something that is too big or too small. The jacket should fit snugly and properly.

It's also a good idea to take the child to swimming lessons first so that they'll be familiar with the water.

Dressing children appropriately is also very important. Because children are smaller, they are more likely to get cold quickly, so make sure that they have enough layers to stay warm, especially in case of immersion. Neoprene wetsuits are inexpensive and do a great job of keeping kids warm, wet or dry.

Never tie or strap your child into the kayak. You might think that it's obviously a bad idea to do this, because if the boat capsizes the child won't be able to get to the surface, but I have seen and heard of parents doing it with best intentions! A good life jacket will quickly float a child up to the surface and keep their head above water, so that you can help get them to shore.

Be more conservative about where and when you paddle when you've got children with you to really minimize the chances of capsizing or running into bad weather or lack of sunlight. Always remember to bring enough food, water, extra layers, first aid kit and cell phone (turn it off unless you need it for an emergency). Just like anything, if you use common sense then the whole family will enjoy the outing!

Elderly: In addition to getting kids out on the water, it's also fun to get the elder members of your family kayaking as well! Kayaking can be enjoyed at any pace and people of all ages can have a good time kayaking, especially on protected, calm waters.

Tandem kayaks are good for family outings, because they seat two people. These are great for sharing your kayaking experience, especially with someone who doesn't want to do all the paddling themselves. The stronger paddler should sit in the rear, where steering is easier to do. When paddling together, the stern paddler should try to match their stroke to the one set by the person in the bow.

Dogs: Since we're talking about the entire family, let's not forget our canine friends! Some dogs love the water and will have a great time with the family on a kayaking trip.

If your dog is not a strong swimmer or you'll be paddling in current, consider a doggie life jacket to help them swim. Dogs are happy sitting in front of you in the cockpit, although it is harder to fit them in sit-inside kayaks with smaller cockpits.

If you are bringing your dog along to paddle where a lot of people are enjoying the water, please be conscientious about the fact that not everyone is comfortable around dogs.

When you do venture out with the whole family, remember to be conscientious of the group's ability.

You're only as strong as your weakest paddler so don't drag your kids on a 15-mile paddle if they're not up for it. If you try to get your paddling workout in while going out with the family

the whole experience could turn sour for everyone. To help make the outing fun and pleasant for everyone drop your agenda and set the intention to relax and be present with your family and the beauty that surrounds you.

How to choose the right kayak

Kayaks come in all shapes and sizes so it's important to understand the available options. Having the right kayak will not only get you the most enjoyment but it will also greatly impact your safety on the water. Narrowing down your options is easy, and it starts with identifying how and where you'll be using your kayak.

How & where? Will you be paddling on small sheltered bodies of water like ponds or small lakes? Or will you be taking the kayak to big bodies of water that are exposed to wind and waves? What's the water temperature going to be like most of the time? And when it comes to paddling, is it more important to have a kayak that's fast and responsive or are you more concerned about having a very stable kayak that would be difficult to tip over?

With these questions in mind, your first and biggest decision is whether to go for a sit-on-top or a sit-inside kayak and there are pros and cons to both.

Sit-on-tops:

Sit-on-tops (SOT's) are the most user friendly. They are very stable, easy to get in and out of and there is no feeling of confinement on them. They're also self-bailing which means that water drains through small holes called scupper holes that go right through the kayak. Another great thing about sit-on-tops is that you can slip on and off them very easily which makes them a great choice for kids to play with.

All these features make sit-on-top kayaks ideal for more cautious paddlers, for warm environments, for rougher water conditions, and for people who are paddling the kids who love to swim. The downside to sit-on-top kayaks is that you are guaranteed to get wet while paddling, while sit-inside kayaks allow you to stay dry.

Sit-inside: Sit-inside kayaks are great for paddlers who will be in cooler water, who want to stay dry while paddling and who want a faster moving kayak. The only downside to sit-inside kayaks is that if you flip for some reason, recovering isn't a simple process because your kayak's

going to swamp. Once you've decided on whether to go for a sit-on-top or sit-inside, you'll need to decide on the length for your kayak.

Length: As a rule, the longer and narrower a kayak is, the faster it will travel and the wider the kayak is the more stable it will be but the slower it will be. Most sit-on-top kayaks are considered recreational kayaks because they tend to be wide and ultra-stable while sit-inside kayaks tend to vary a lot more in shape and size.

Categories: In fact, kayaks can be broken into a couple distinct categories. You've got recreational kayaks which are wider, shorter and have large cockpits that don't feel confining. Rec kayaks are usually 9 to 12 feet long. On the other end of the spectrum, you've got touring kayaks which are designed to be fast and to deal with any type of condition. Touring kayaks are long and narrow, and they have small cockpits that are designed to be used with the skirt to keep the water out. A small cockpit also lets you use thigh hooks to grip the boat with your legs which gives you a lot more control over the kayak.

The tradeoff is that touring kayaks are lot less stable than rec kayaks and people can find the small cockpits confining even though if you flip it's very easy to get out of them. Now as a rule, it's a good idea if you're going to paddle a touring kayak to take a sea kayaking course because among other things, it teaches you how to deal with a capsize.

How to paddle a tandem kayak

Tandem kayaks, or doubles, are a great way for two people to get out on the water together. Read on to learn more about tandem kayaks and how to practice paddling, navigating, and turning a tandem kayak!

Tandem kayaks make for wide & stable recreation: Tandems are typically wider than single kayaks, which makes them very stable, and therefore a great way for introducing new paddlers to the sport. In fact, you can take almost anyone kayaking in a recreational tandem. They're great for kids, parents, grandparents, or even your dog! Your passenger doesn't even need to paddle if they don't want to. Just sit them in the bow and take them on a tour of the bay.

Although tandems provide a great opportunity for taking a passenger for a ride, if both people are paddling, tandems can travel surprisingly quickly.

Paddling in unison: The most efficient way of paddling them is by doing so in unison. Not only will you power your kayak forward most quickly, but you'll also avoid the clashing of paddles. It can take some practice at first but is well worth the team effort!

Strength in the back: If there's one paddler who's physically stronger than the other, it makes sense for them to sit in the back seat, while the weaker sits up front and dictates the paddling pace. From the back, the stronger paddler can modify their stroke to keep pace and will also have enough control over the boat to keep paddling if the person up front wants to take a break.

How to turn a tandem kayak: Some tandems are equipped with a rudder, which can really help to keep the boat running straight, or to make light course corrections. When it comes to actively turning though, the best solution involves a little teamwork instead of the rudder. Ideally, the front paddler takes a forward sweep on one side, while the stirring paddler performs a reverse sweep on the opposite side of the kayak. In unison, this can turn a boat surprisingly quickly while stationary.

When it rains, how do you know when it's safe to paddle a river?

River levels can change quickly during and after a rainstorm as the runoff continues to drain into the river from ground water, storm sewers and hill runoff.

A high river is faster, muddier and often colder than a normal flowing river. You can't easily see submerged obstructions and fast water means you have less time to make a snap decision when paddling on the water.

Fortunately, you can monitor the river levels in real time on the Chemung River Friends' website www.chemungriverfriends.org. Click on the "rivers" page in the information bar and scroll down to "live river level data." This will give you real time river levels at several river gauges along the Chemung, Cohocton and Tioga rivers.

Compare those levels with the accompanying safe paddling levels chart (see below). The page also includes weather and river level forecasts and other useful safety information.

Keep in mind that water releases from the Tioga-Hammond Dams can also affect river levels.

While the river may look smooth, serene and safe on the surface. You can't see what's beneath the muddy water.

You should always wear a buckled or zipped life vest when on or near a river. Always take a partner and let someone know about your trip locations and schedule ahead of time.

Fast-moving water can make it difficult to safely and easily bring your boat ashore – you may overshoot your landing spot or not be able to land at all.

Always consider river conditions, your experience, knowledge of the river and your health and skills.

Best advice: When the water is high and you're not sure if you should paddle, you probably shouldn't.

Safe paddling chart:

- Chemung River at Elmira: 1 to 4 feet
- Chemung River at Chemung: 3 to 6 feet
- Chemung River at Corning: 15 to 17 feet
- Cohocton River near Campbell: 2 to 3 feet
- Canisteo River at West Cameron: 5 to 7 feet
- Tioga River at Lindley: 4 to 7 feet

How to dress for kayaking

Trying to dress for kayaking based on both the weather temperature and the water temperature can be a challenge. Learn a few recommendations on how to dress to each occasion.

Warm weather & water: If you live in a hot part of the world that has warm water, dressing for kayaking is simple. Your biggest challenge will be staying cool, hydrated, and protected from the sun, and this should be something that you're used to doing. The simplest solution involves using sunscreen and wearing a hat. Sunglasses are also helpful because the glare off the water can be blinding, and you'll want to use some type of retainer strap, so you don't lose them. Of course, the best way to protect yourself from the sun is to cover up, so you might want to wear a light long-sleeved shirt. Below the waist, surf shorts and water shoes or sandal like Tevas work great.

Hazardous temperature guide: If you add the water temperature and air temperature and the sum is less than 100, there is a cold hazard to paddling.

Warm weather & cold water: Dressing for cold water is far more difficult, especially when the air is warm. Even on the hottest days, if you find yourself swimming, the cold water can suck the heat out of your body at a surprising speed. If you're paddling a sit-on-top kayak, you must expect that your lower body is going to be wet, whereas a sit inside kayak will protect you a lot more from both the wind and the water. On the other hand, if you flip when paddling a sit-on-top kayak, you can just climb back on the boat. But if you flip a sit-inside, it will take you a lot longer to get back on board, which means you'll spend more time in the cold water.

Close to Shore vs. Offshore Of course the best strategy is to avoid capsizing altogether, and this is easy to do in a rec kayak, if you stay in areas that are protected from heavy wind and waves. On the other hand, if you're going to paddle a narrow sea kayak in cold water, you should take professional instruction and learn the different capsize recovery techniques.

Whatever boat you're paddling, it only makes sense that you stay close to shore, so that if you do flip, you have the option of just swimming to shore, while your buddies gather your equipment. If you're going to be paddling in more committing areas, where you won't be able to get to shore very often, it's important to choose the right clothing. You want to be able to wear something that will keep you warm if you get wet, but that you won't overheat in when you're paddling. A neoprene Farmer John wet suit works well for this purpose, because it insulates when it's wet, and doesn't get in the way while you're paddling.

Cold air & cold water: When both the water and air temperature are cold, you must be aware of the threat of hypothermia and understand that paddling in these types of conditions isn't for everyone. But if you are going to hit the water, you need to use clothing that will keep you warm, even when they are wet.

Fabric: Synthetic fabric like fleece, neoprene, and polypropylene are good for this reason, and it's best to use a couple of thinner layers instead of one thick layer. Wool also works well although it's slow to dry and heavy when it's wet. Cotton is one of the all-time worst materials to wear when it's cold. Cotton draws heat from your body when it's wet.

Paddling tops/bottoms: Over top, you'll want to have an outer shell that keeps the wind off your body. A waterproof nylon jacket and pants will do the trick, but at your local outdoor or paddling shop, you'll find paddling tops and paddling bottoms that are designed specifically for the purpose. On your feet, neoprene booties and socks will help keep your toes warm.

Dry Suits: The ultimate protection against the cold, though, is the dry suit. A dry suit uses latex gaskets at the ankle, wrists, and at the neck, which keeps all the water out. Dry suits are expensive, but if you spend a lot of time paddling in cold conditions, they are well worth the price.

Spray skirts: If you're using a sit-inside kayak you can also use a spray skirt, which keeps the cold water out and keeps the hot air in. When you're putting on a spray skirt, you want to start along the back and work your way up along the coaming, then pull the skirt over the front

coaming, making sure you leave the rip cord out, because that's what you're going to pull to pop the spray skirt if you do end up flipping.

How to self-rescue if you capsize

When kayak touring alone, it is important to know how to self-rescue if you capsize

Although paddling alone is never a great idea, if you do choose to do it you need to stay close enough to shore so you can comfortably swim. Or you need to have some self-rescue techniques up your sleeve that you know you can count on. So, in this video we're going to take a quick look at a few of the most popular self-rescue techniques.

First off, it's important to understand that self-rescues are not easy and it's going to take a lot of practice to perfect them. Especially when you consider that when you're going to use them, you'll probably be in rougher conditions. **The absolute best self-rescue technique you can learn is this rule: if you want to paddle in the surf or other rough or exposed conditions, you owe it to yourself to learn a bomb-proof roll.** If this is something that interests, you then I would highly recommend taking a rolling clinic. If you don't have a reliable role or if, for other reasons, you end up finding yourself swimming beside your kayak, here are two techniques.

The Scramble Self-Rescue For re-entering your kayak by yourself, the scramble is just what it sounds like. After flipping your boat upright, you'll scramble back onto and into your kayak. The best way to do this is to approach your boat from the side at the stern. Now grabbing the cockpit combing, you'll pull your body on top of the kayak keeping your chest down on the stern deck. Staying as low as possible, throw a leg over the kayak so that you're straddling it. You'll now work your way forward until you can drop your butt into the peak. You can then grab your paddle and use it for support while you pull your legs back into the kayak.

The Paddle Float Rescue The paddle float rescue is a variation of the scramble which uses your paddle with a float attached to one blade for support. When doing the paddle float rescue, you'll place the paddle across the back of the cockpit combing (perpendicular to the kayak). You'll then hold the paddle in cockpit combing in one hand to reach a cloth to grab the combing with the other hand. With your legs on the surface behind you, you'll give a good kick and pull your chest up and onto your kayak. Staying low, you can then hook a foot over your paddle shaft to get some additional support while you turn your body to face the stern of your kayak. Then move your other leg into the cockpit while keeping your weight on the paddle float side of the kayak. You'll then move your other leg into the cockpit and corkscrew your body back into the seat.

Whether you've used the scramble or the paddle float rescue, you'll still have a swamped cockpit to pump out. Although the scramble or paddle float rescue can literally save your life

if you choose to paddle alone, I personally couldn't imagine paddling alone if I didn't have a bomb-proof role. So, if you're interested in doing either, I'd recommend taking a rolling clinic and practicing the role until you have complete confidence in it. On top of that, it is important that you always carry a reliable communication device with you and that you leave a float plan with someone so they know when to expect you to return and where to start looking for you if you don't show up.

How to pick the right kayak paddle size

Besides knowing what to look for in a kayak, a beginner is also challenged with knowing what is the best paddle length to choose. Opinions vary slightly as to what is the most efficient length for a paddler although the range of methods is narrow and commonplace throughout the paddling community. Determining the proper kayaking paddle length to use is based on several factors, from body stature to boat dimensions to paddle stroke preference. Before getting into those dynamics, a few comments on how lengths are expressed.

The industry standard is to use metric units to measure and describe paddle lengths. Tell a fellow kayaker you use a 72.22" paddle and you'll probably get a blank stare. Say you need a 220cm, however, and most everyone will immediately know – and picture – what length you are talking about.

If you are still a little rusty on your innate metric conversion abilities, know this: 2.54 centimeters (cm) = 1". Keep this in mind when you are comparing the difference in length between a 220cm and a 230cm paddle. We are talking 3.9"; that's slightly less than a 2" difference *on each end* - out to the blade tip from the center of the shaft.

Although slight, it can make a modest but accumulative difference when you consider the effects that could result from using a paddle of less (or more) than an optimum length: compromised form, banged knuckles, inefficient paddle angle or power face contact and others. Multiply any of these by a thousand strokes and imagine the potential you are losing each time you execute a stroke using a paddle that's the "wrong" length.

Here are the major factors that will ultimately suggest the proper paddle length to initially consider:

Body Stature A good friend of mine is exactly my same height, 6'7" tall. We often turned each other on to new kayaks on the market we could comfortably lower our tall frames down into. Despite our equal height, most of the time a super fine fit for one was an uncomfortable contortion for the other. What's going on? My height is in my legs; his is in his torso.

The length of your torso becomes one of the elements when using your height to determine which paddle length will work best for you. Most tables chart list just your height against

various paddle lengths. Taking your torso height into account as well can help reaffirm what the height charts suggest for a proper paddle length.

Measuring Torso Height

Sitting up straight on a flat-seated chair, measure from between legs near crotch straight up to tip of nose. This is your torso height. (*Compiled from tables published by Aqua Bound and Mitchell Paddles*).

Torso Height	Paddle Length	High Angle Style	Low Angle Style
22"	180cm	- - - - - -	- - - - - -
24"	180-200cm	210cm - 215cm	215cm - 220cm
26"	190-200cm	210cm - 215cm	215cm - 220cm
28"	200-220cm	210cm - 215cm	215cm - 220cm
30"	210-230cm	220cm - 230cm	230cm - 240cm*
32"	220-240cm	230cm	
34"	230-250cm	230cm	
36"	240-250cm	230cm	

* My torso height is 33", I've never used a paddle over 240cm.

Kayak Design Simply put, the wider the kayak paddled, the longer the paddle needed. In order to keep proper blade placement in the water, you need to be able to reach beyond the gunwales of your craft while maintaining proper paddling form. You don't want to be banging your knuckles on the deck, nor do you want too much or too little of the power face of the blade in the water.

Here again, there are many variables that come into play. A shorter person in a wider boat may need the same length of paddle as does a taller person in a narrower kayak. Paddles in tandem kayaks generally are longer than those used in solo kayaks and so on.

Another factor is the height of the seat surface in relation to the gunwales. Two kayakers of the same torso/height in the same kayak may need different paddles if the seat height was different in each boat.

Stroke Angle Preference Do you prefer a high stroke that brings the power face closer to the side of the boat in a less acute angle of entry to the water? Or, do you like the lower stroking angle often used for casual touring that puts the shaft at a more acute angle to the surface? The same paddler, in the same kayak, would use a slightly shorter paddle for the former style, slightly longer for the latter.

You can see that finding the ideal or optimal paddle length depends of a variety of factors relating to the physical shape of the paddler, one's individual paddling style and the type of boat

with which the paddle will be used. These are all gray areas that limit any black & white statement about which paddle length you should choose.

On-Water Method By far, the best and ultimate method for determining that ideal length is to get out on the water and paddle using proper techniques in a kayak you will be using with your paddle. Demo days are a great way to help you test paddle a kayak. Most reps will be able to suggest a starting length of paddle for you to try. Once you find a boat you like, you may want to try a few different lengths of paddles as well.

Testing a paddle will mean using proper form (torso twist, upright posture, proper hand positioning, good forward and sweeping stroke styles, etc.). You don't want to choose a paddle based on poor paddling form. Of course, the beginner's form you've acquired could be the result of using an improper length of paddle from the start. As you can see, it's a matter of trial and error and seeking – and following - good advice from those more experienced.

Quick-Pick Method There are two quick and accurate on-shore methods for determining a proper length of paddle to use:

1. The first method involves holding your arms out, elbows bent at about right angles in normal paddling posture and grasping the paddle as you would normally. Your hands should be about 2/3 of the way from the center of the shaft to the shoulder of the blade.

1. Select a paddle you think is about the right length and stand it upright (vertically) alongside you. Reach up with your arm fully extended, hooking your first finger joints over the top edge (tip) of the paddle. If you can reach further/completely around the top edge or, conversely, if your fingers don't even reach the top, choose a different length.

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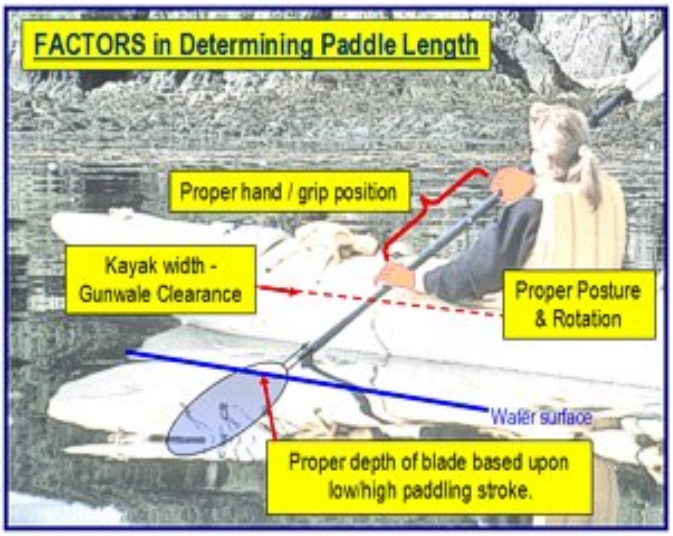
2. **By the Numbers** Here is a compilation of measurements from several paddle manufactures that cross-reference height and boat widths to suggest the proper range of paddle lengths to consider:

Paddler's Height & Boat Width

(Compiled from information from Bending Branches/Sawyer/Werner Paddles & Others)

Height Range In Feet/inches	Boat widths in inches * * * 21-23	24-26	27-28	28+
< 5' –5'5"	210-220	230	230	230-240
5'5"- 5'10"	220	230	230	230-240
5'10"- 6'2"	220-230	230-240	230-240	240
> 6'2"	240	240	240	240

Choosing the right paddle length, you should use depends on many factors that are determined by your size, paddling style and type/size of boat. The more you develop and fine tune your paddling and experiment with different paddles, the easier it will be for you to determine what's the best length for your paddle. And if you are like most avid paddlers, you will soon have several in your arsenal from which to choose.



Now, deciding upon the shape of the blade, feathered/unfeathered and paddle weight and material is a whole other related matter…

Be safe; Have fun!

Tom Watson is an avid sea kayaker and freelance writer. For more of Tom's paddling tips and gear reviews go to his website: www.wavetameradventures.com He has written 2 books, "Kids Gone Paddlin" and "How to Think Like A Survivor" that are available on Amazon.com.

How to paddle a kayak in a straight line

People generally think paddling a longer kayak will make them go straighter, but with proper technique you can paddle any sized kayak straight as an arrow. Watch this video for a list of helpful tips for how to paddle straight.

Newer paddlers often reach out and say “hey, what are some tips for me to keep my kayak going in a straight line?”

With good technique, you should be able to paddle any kayak in a pretty straight line. So, here's a couple of tips and things that I usually see when I'm guiding or when I'm working with new paddlers.

1. Hand positioning the first one that comes up a lot is hand positioning. When you're just getting into paddling you might not know exactly where to put your hands on the paddle and then throughout the day your hands might move around on the paddle. That might make it so that you have more of the paddle out of one side than the other, and that will not help you in going in a straight line.

A good rule to follow, and it's okay to do this several times throughout the day – and as you get more comfortable with it you'll have to do it less and less until eventually your hands will just get used to going to their positions automatically, you'll just be able to feel it out.

But at first it's okay to every so often take the paddle, put it up over your head, let your arms go into a comfortable position where your elbows are making a right angle and then when you take the paddle down make sure there's the same amount of paddle to either side. This should provide you with a comfortable hand position and will create a strong paddler box in front of you.

2. Match strokes on both sides Another thing I often see with new paddlers is they might not be matching the same kind of strokes on both sides. That's okay, that's just because they're just getting started. For example, they might be doing a full forward stroke with one paddle but then their other hand might be doing a sweep stroke.

It's good to go back and understand the difference between a forward stroke and a turning stroke, a sweep stroke. A forward stroke is trying to get the most forward momentum, the most forward power out of getting the blade in the water – and then get as much forward force out of that stroke.

A sweep stroke usually keeps the paddle very close to the surface of the water, it goes in an arc out and around, and away from the kayak. That's a stroke that's used to turn the kayak. So, keep an eye on your blades and if you're trying to go in a straight line, try to match your stroke on both sides.

3. Dominant hand Another thing that comes up a lot, which is very funny, is sometimes I'll see someone paddling and I see that they're always veering off to one side. And if none of the other usual things that will cause the kayak to turn are present, it could be this. A lot of times newer paddlers will use their hands, they'll use their arms to paddle, and that dominant hand will probably put in more strength into each stroke – meaning the kayak will probably turn away from that side.

One thing that's very important to talk about is as you progress, your forward strokes should change from using your hands and using your arms to using your core and using your legs. The rest of the body, the bigger muscle groups are the ones that should be providing all that force for your forward stroke. Your arms and your hands simply are going to be transferring all of that from your body to the paddle. Don't get me wrong, we all start there. Most new paddlers, the first time they get on the water, they'll be paddling with their arms – and that's okay. But as you progress look to improve that forward stroke.

4. Anticipate your kayak's response Another thing that's interesting to see, you should try to anticipate what the kayak is doing. What I mean is, we don't have breaks. We don't have immediate actions and responses in the water. I often see new paddlers, when they're going, and I can see that the boat is starting to turn a certain direction. They sometimes don't really notice it until it's a little too late, and then they put in lots of correcting strokes on the other side but by the time they realize that they over-corrected, the kayak then turns in the opposite direction again.

So, the idea is to simply anticipate what you're trying to do so that you correct ahead of time. The more practice you have, the more you'll be able to anticipate this and the easier it is going to be**.**

For example, if you're matching your strokes, a stroke you put in now might show you what is going to be doing in a couple of strokes later. If you add two, three, four corrective strokes on one side suddenly, a couple of seconds later you'll see the boat reacting. So, anticipate what the boat is doing and as you progress and as you get better, you're going to get better at doing that as well.

5. Longer water lines will track better: Longer kayaks will just inherently track better. If they have a longer waterline, they will just track better. A 10-foot kayak will probably want to turn side-to-side a bit more than, let's say, a 17 or 18-footer. But with proper technique even the shortest of kayaks can be kept going in a pretty straight line.

You can look at some whitewater paddlers; tiny, tiny play boats they can keep going straight because they've gotten to a point that they can match each stroke on each side and then keep it going in a straight line.

I think the main thing is to try to watch to see how much of your power goes actually into going forward and then trying to see if you can match left and right, because once you have that kind of down, muscle memory will eventually take over and just keep you going in a straight line without you thinking about it.

Now, all these tips mostly apply when conditions are calm and there's no wind. If you want to keep a kayak going straight when there's high winds or when there's waves, that's a different story and we can talk about that in a different video.

What Happens if I Flip?

Paddlers often say that we're all "between swims." Flipping is always a possibility, and if you end up in the water paddlers call that swimming. There are many ways to get back in a kayak. With practice, you can do some of these on your own, and some require the help of a buddy. We're going to quickly demonstrate a few different methods for getting back into a kayak.

If you're paddling a sit-on-top this video may be enough. But to master some of the more advanced techniques, especially for sit-inside kayaks, getting some professional instruction is a great idea.

Getting back on a sit-on-top kayak is the simplest situation. First, be sure your kayak floating right side up. If it's not, turn it over by pushing on one side and pulling on the other. Next, if you're paddling with a buddy ask them to stabilize your boat. Even if your friend isn't right there, don't worry. You should still be able to climb back aboard your kayak by yourself, especially if you've practiced the technique before.

Swim to the back of you kayak and pull your chest on top of the boat. It helps to start with your legs behind you at the surface, then kick with your legs as if you're getting out of a swimming pool. Slide your body toward the cockpit by pulling yourself towards it with your arms while staying low and allowing your legs to hang off either side for stability. Once you reach the cockpit, sit up straddling the boat and swing your legs through the water until you can sit low in the seat and pull your feet on top. Grab your paddle, and you're ready to go.

Another variation is to climb on from the side just in front of the seat where the side of the boat is the lowest. Again, start with your feet at the surface and kick to pull your chest onto the boat. Scoot your hips up, and then twist into the seat. This works with more stable boats, or when gear on the deck makes it hard to scoot down from the end.

Remember to practice in real world conditions. Since you're most likely to flip in wind and waves, don't just practice in a calm harbor.

With a sit-inside kayak thing are more difficult. Often, they're less stable and when they flip, they can fill with water, which makes them way less stable. We don't have time to fully teach these skills in this video, but we want you to know what's possible.

The most common method is called an assisted re-entry, and as the name implies it relies on teamwork. The paddler who is still in her boat helps the swimmer by steadying his kayak as he gets back in. Once things are secure, and the situation allows, pump out the water. You can also drain the boat before helping a swimmer back in, if time allows. It's a reliable method, but again, requires some practice and teamwork to pull off, especially in rough conditions.

Make sure that your sit-inside has bulkheads, watertight compartments in the front and back to keep it from sinking, even when the cockpit fills with water. If it doesn't, get a set of inflatable air bags at your local paddling shop.

These techniques are easy, and fun to learn if you take a class. And if you have a sit-inside kayak, we recommend you take one. Check with your local paddling shop or go online to find instructors in your area. And remember, with any of these techniques, it's important to practice them in the places you use them. That's what happens when you flip. It's nothing to worry about if you've practiced what to do.

And remember: "Be smart, Be safe, and Have fun."

How to plan for a kayaking trip

Being on the water, exposed to Mother Nature, means when things do go wrong, they can go very wrong, very quickly. Here's how to plan in order to expect the unexpected.

Location

First off, you need to choose an appropriate paddling location for the skill level of your group, and this means accepting the fact that your group is only as strong as the weakest paddler in it. So, what makes an appropriate paddling location? Well, if there's anyone in your group who can't physically re-enter their kayak with help, this is a major limiting factor, because if for any reason they flip and swim you'll need to tow them and their gear to shore.

In this case, you'll need to stay in water that is protected from wind and waves, and close enough to shore so that it's easy to reach. If everyone in the group can confidently roll, or re-enter the kayak after swimming, then it's reasonable to start traveling further from shore, but it becomes even more important that you assume a conservative and safety conscious attitude when making decisions on where you'll travel.

We're going to look at a few things to consider making your trip safer.

Your Route One important factor to consider when you're planning a kayak route, is what bail out or contingency plan opportunities are available. Having a Plan B in mind for getting out of the water is important, because there are a many factors that can make your original plan unrealistic, or even dangerous, and people often get into trouble because they think they have no other option than to stick to their original plan.

For example, what are your options if the wind picks up strongly, or a thunderstorm approaches? Or maybe there's even an uncomfortable amount of motorized boat traffic to deal with. Now once you've established a paddling route and have come up with some back up plans, it's important to create a float plan, and to give it to somebody who's not going to be on the trip. The float plan doesn't need to be a fancy piece of work, but it should communicate where you intend to travel, a general outline of your schedule, and your alternate or contingency plans in case something causes your plans to change. The value of a float plan for day trips or multi-day trips is that they'll give search parties a huge advantage if something happens and you need help.

When it comes to contingency plans or float plans, a lot of people won't go to the effort if they're just going on a day trip. But, in many ways' day trips are more dangerous than multi-day trips, because paddlers usually don't go prepared to alter their plans or spend the night out. This means you'll feel more inclined to push your luck to get back home. Therefore, for day trips, it's still very important establish contingency plans, and to draw up a float plan. This is also why you should always bring an emergency kit in your kayak.

Emergency kit An emergency kit is simply a dry bag with enough gear to make an unplanned night out a realistic option. Depending on where you're at and the weather conditions, your emergency kit should include things like a fleece jacket and pants, rain gear, heavy wool socks, a warm hat, a headlamp, energy bars, water matches and a lighter with some fire starter, and even a small tarp and some rope. Of course, it's not going to make for the most enjoyable camp trip, but it's going to make camping out an option, which is the most important thing. Well, I hope you enjoyed this video and learned something from it.

The forward paddle stroke

One of the topics I've been thinking about for a while is "what is our ultimate goal when it comes to paddling?" There are tips, taking lessons, and all these different activities that we do as paddlers. I think sometimes we get too caught up in what we're doing, and we may forget why we started doing it in the first place.

So, what I'm going to talk about is the forward stroke, which is an extremely controversial topic. The way I'm going to discuss it is:

1. I'm going to discuss why it has come up many times in my recent videos.

2. What is the most efficient forward stroke.

3. The controversial aspect of how different coaches approach it and how I look at it and

4. What is our goal? Which is in my opinion the most important point I want to make and the foundation of this channel.

Many of you have pointed out, correctly, that as I try to catch waves in my surf videos, I'm pumping my arms and not using my core. That is correct, and I want to explain where that comes from and how I am right now in the middle of a learning stage.

I found myself out in Mendocino earlier this year filming and working with a group of fantastic coaches and one of the things that was happening to me on the waves out there was that I was broaching very quickly right after the wave was picking me up. Jeff, a fantastic coach that lives out there pointed out to me that what I was doing is I was putting too much power on my strokes right as I was trying to pick up speed to get on the waves and usually that last stroke before the wave finally picked me up, if I put too much power into it, I was actually starting to turn. The wave would then say “hey, here's some edges to grab” and it would push me sideways.

One of the tips I got that day, which has been fantastic, is take lots of little strokes. Work up on your speed but cancel out that movement from side to side with lots of little strokes, and then when the wave picks you up, you are perpendicular to the wave and then you get to choose what you want to do next.

It all happens so quickly as I'm trying to decrease that power, my body just goes to paddling with my arms. Which I understand it's not the right form, but I'm just in that period of working out how to get to a more efficient quick stroke. That's just where I am in my personal development and I'm happy to share how I'm learning and how I'm trying to get to the next phase.

Now next let's talk about an efficient forward stroke. If you want to see an efficient forward stroke, look no further than anybody that's competing with a forward stroke. So that is: Olympic paddlers, surf skiers, paddlers who really care about shaving up fractions of a second with each stroke. They will be extremely, extremely efficient. They use their legs, strong muscle groups within their body, their arms simply carry that energy from the legs, from the core to the paddle and they don’t waste energy with the blade in the water too long.

I mean, we can spend months and years discussing this, and my point is those are the paddlers you really want to look at if you want to see a fantastic forward stroke.

Next, the nuances and how different coaches might approach these nuances. This is where the video might get controversial, but that's okay because this is something, I really believe in. That is, we all have different body types, we all have different amounts of power, we all have different amounts of flexibility, we all have different boats.

So not every person is going to be able to paddle in a perfect forward stroke similar to a surf skier or an Olympic paddler, or even, let’s say someone in a recreational kayak, while picking up some of those tips and having a better forward stroke, just because of the way the

recreational kayak is, they might not be able to do exactly those same kinds of motions. And that's okay!

A lot of coaches feel that if what you're doing is efficient, it's safe, and it's trying to cut down on wasted energy, there's nothing wrong with that being your forward stroke. Don't get me wrong, we should always aim to get better, we should always aim to continue learning, and having an efficient forward stroke can make a huge difference in how much fun you have throughout the day.

The Greenland paddling community is very big about this as well. I had one coach in particular say, when a student asked “but I don't see you really rotating your body a lot” and the coach said “my legs are engaged, my core is engaged, I'm looking to see where I put my paddle in and where I bring it out. I'm trying to be as efficient as possible with what my body allows me to do.” Therefore, to him, that stroke was a good, efficient, powerful forward stroke. It might not be a textbook definition, but to that coach it was a strong, powerful, efficient forward stroke.

The last point, which to me is the foundation of this channel, is what is our goal on the water. I'll give you a quick example – every summer I go out with my family to a lake and we spend the week out. I usually bring our recreational kayaks because I love trying to get my family out with me.

This last summer I took my mom out and she was in my recreational kayak. We went out, we got to see some little turtles swimming around, and it was awesome. She had a great time! And while I gave her tips to try to keep her boat straight and try to get the most out of the day, I still think that her idea of a great time in the water is just hanging out with all of us. It's not whether she can get the most out of every stroke. And if I spent all my time giving her tips, we wouldn't have a good day. So, we just must remember, in my opinion, what really is the goal of what we're doing.

If we are racing, if we are trying to be as efficient and as fast as possible, then fantastic, let's put all our time and energy into being as powerful and as efficient in our forward stroke as possible. But if our idea is to simply have fun, let's remember that as well. As a coach sometimes I must put those two things aside and give tips where I can so that paddlers can continue to grow, but then also remember that a lot of people just want to have fun on the water.

The definition of that might be to paddle out to the middle of the lake, hang out all day, and paddle back. For that you don't need the best equipment, you don't need the best form, you just need to have the right attitude and you need to be safe and not forget why we started paddling in the first place.

I'd love to hear your feedback on this. I know this is a controversial topic, but I really do feel that I want this channel to be an area where people can chime in – we all must start somewhere. We're not all perfect paddlers, but we can work together to get better each time, to learn from our mistakes, and I really want us to not forget to have fun while we're on the water.

Tips for cold water paddling

Paddling in the in the fall, in the winter, in the spring is amazing. Especially in the winter – it is stunning, but a lot of times paddlers don't realize the dangers of cold water. I've often heard kayakers say “hey, I have a very stable boat, there's no way I'm going in the water, I haven't tipped yet.” But the truth is you will capsize. You will capsize at some point, so you need to be ready.

If you ask any experienced paddler, they'll tell you the same thing “we're all in between swims.” You need to know how to get yourself back in the boat, you need to know how to deal with being in the water, you need to be able to get other people out of the water if they fall in – especially in the cold. In cold water you need to act quickly.

So, let's talk about the risks of cold water. First off, hypothermia. Even though hypothermia takes a little while to set in, muscle incapacitation is what happens very quickly – as little as 5 to 15 minutes and you won't be able to do a lot of the things you need to do to get yourself back in the boat or get someone out of the water. For example, calling for help using your phone, using your VHF radio, setting off a flare, turning your boat right side up, trying to empty it or just even trying to hold on to it if let's say there's a lot of wind and you hold it holding on to that perimeter line. After 5 minutes of being in the water that will become very, very hard to do. All the fine motor skills, gone. Your hands, very hard to use. Pressing buttons, impossible.

So that's one of the main dangers because eventually hypothermia will set in because you haven't been able to get yourself out of the water. One of the ways to avoid this is by dressing appropriately so that you can extend that amount of time that you can be in the water.

Another big risk is called water shock, it's what happens to your body when it's exposed to cold water unexpectedly. One of the things that happens is known as the gasp reflex. If you are submerged in cold water, the first thing your body's going to try to do is suck in air without you meaning to. It's just a response that your body will have and that might be the absolute worst thing that you want your body to do if you're capsized and upside down in the water.

So, one of the ways to reduce this risk is to dress appropriately, so that the least amount of skin is in contact with the cold water and therefore we're limiting the possibility of that reflex taking place.

One of the main things we should be doing is wearing our PFDs. We should be wearing our PFDs all year round. The statistics show just how beneficial it is to wear your PFD when you're out on the water but especially in the cold months it is extremely, extremely beneficial.

With hypothermia and muscle incapacitation, your PFD is crucial. It'll help you float while you're doing all these things when you need to get yourself out of the water and back in your boat, you don't need to be treading water. The other thing it'll do is it'll act as a little bit of insulation – it'll keep your torso and your core a little bit warmer than not wearing one.

Let's talk about appropriate clothing for different temperatures. Paddle Boston has this great chart and it shows you the water temperature, the risk of hypothermia and the appropriate clothing you should be wearing. Here, it shows that for 60 degrees and above of water temperature, the hypothermia risk is low, so therefore you can just dress for the weather.

From 55 to 59, the risk is moderate, so a wetsuit or a dry suit would be appropriate. 45 to 54 Fahrenheit there's a high risk of hypothermia, so therefore a dry suit is recommended but don't forget that a dry suit doesn't keep you warm, a dry suit needs to have lots of layers beneath it to keep you insulated for the appropriate temperature. So below 45 degrees Fahrenheit there's extreme risk of hypothermia, so a dry suit is strongly recommended once again with the appropriate layers beneath.

Now, people will argue these points a lot, some people like wearing wet suits the entire time, others will pull on their dry suit the moment the water starts getting a little bit colder and just play around with the layers underneath. I'd say to each their own, this is a great guide for you to try to figure out what to wear.

Rule number one: no cotton! Use synthetic fibers or wool to keep you warm – things that will not keep water in. Cotton will act as a sponge and absorb all the water in and will keep it there, keeping you wet, keeping you cold, even when you're not in the water.

So, let's start with wetsuits. Wetsuits are made from neoprene material and they work by having a layer of water between your body and the neoprene material. Your body warms that layer of water up and keeps you warm. It's a great way to insulate yourself. It comes in lots of different thicknesses, from 0.5 millimeters all the way to 7 or more millimeters. I think also as well scuba divers will go thicker. The good thing about a wetsuit is they're usually inexpensive. They make them in lots of different sizes, you can get just shorts, tops, you can get a farmer John or a full wetsuit.

On the other hand, we have dry suits. They're a bit more expensive and what they are is a shell of breathable material with gaskets usually around the neck, the wrists, the ankles, sometimes they have booties. The gaskets are sometimes latex, sometimes they're neoprene. Usually the wrists will be latex, but you can have a semi dry suit and that won't have a latex neck gasket. It's all a matter of preference and it's all a matter of price. Some people want to have all gaskets that are made from latex, others will want the comfort of having a neoprene gasket around the neck. It won't be as watertight as the latex but a lot of times it's a lot cheaper and more comfortable around the neck.

The dry suit only works in keeping you dry. You need to wear lots of layers underneath. They need to be wool layers or synthetic layers – things that can breathe, things that can wick away

your sweat and then eventually it can evaporate through this material. This material doesn't let the water come in, but it allows moisture to come out so that's for your body.

Let's talk about other things. You need to think about your head, you need to think about your hands, need to think about your feet to stay warm.

For your head you can wear wool hats, wool caps, you can wear synthetic materials, you can wear balaclavas, anything you might use in mountaineering or hiking to keep warm, this is good for around your neck or just a full head, or you could even go for neo caps, neoprene hats, those will also keep you warm. Usually hoods like this are great for diving or if you're going to be doing rolling sessions, or if you're going to be playing and surf in cold water that way you can keep your ears dry and warm.

For your hands, same thing. You can find different types of materials. Here's an example of neoprene gloves. These are great for the start of the season but once it starts getting cold, essentially your hands and wind will continue to get cold because they are wet the entire time so the ones like this that once you wrap them and seal them they're much thicker neoprene will keep you warmer. They're fuzzy on the inside, and then you could always go with pogies. If you haven't heard of pogies before, they are great for cold water paddling. They come in lots of different materials, these here I made out of neoprene and the way they work is you just open them up, Velcro them on to your paddle shaft and then you're able to slide in your hand from the bottom and hold on to your paddle shaft inside this neoprene glove.

At first, I thought “no way, water's gonna get in, it’s going to splash in, I'm not gonna stay warm.” They are extremely warm out on the water.

One thing to remember about the pogies is you need to have another pair of gloves for before and after your paddle because anytime your hand is not on the paddle, you're gonna be cold. Also, if you capsize, you're gonna be floating around without any kind of hand protection.

For your feet, same thing. Wool socks, synthetic materials, things that will wick away any moisture and keep your feet dry and then on top of them neoprene for sure. These neoprene booties here are three millimeters, you can find seven-millimeter, nine-millimeter lots of different sizes and shapes and types depending on where you're going. Dry suits a lot of times come with booties so that way you can wear wool or synthetic socks underneath, then the dry suit bootie and then you would put a neoprene bootie on top of that.

One thing you should always have with you is a dry change of clothes. If someone goes in the water, you need to get them out of the water right away and you need to get them out of wet clothes and into some dry clothes so they can start warming up as soon as possible. So, expand your safety kit that you have year-round to allow for this thing like a space blanket or hand warmers, lighters, means of building a fire even if it's raining even if the wind is blowing. Ways to get someone to warm up if they've fallen in and now, they are very, very cold.

You can carry other things to help people warm up, things like food, power bars, snacks, hot chocolate, or warm tea in a thermos. That will help people warm up for sure.

Another thing to remember is that in cold weather batteries drain faster, so don't depend on your phone as your only means of communication. The battery will not last anywhere if it does on a warm sunny day. So have other ways to call people.

Have flares, have a VHF radio, ways to communicate if something goes wrong.

Solo paddling is amazing, especially to hard-to-reach places but you've got to remember just how much higher the risks are whenever the water is cold. So, we usually recommend going in a group of at least three, that way if there's a disabled paddler the second one can help the first and the third one either calls for help or goes to get help.

The three essential safety items for every boat

These safety items that are required by the United States Coast Guard:

1. A properly fitted **life jacket**.
2. A **whistle** or other sound signaling device.
3. And if you think you might be out past dark, bring a **light** so that the other boaters can spot you.

Pack a dry bag with things you might need, like extra layers, a first aid kit, snacks, and sunscreen. And don't forget your water bottle.

Always share your plan with a friend, just in case. Let them know the four W's: Where you're going, who you're going with, when you expect to return, and What to do in case you don't come back on time.

Remember to call, text, or tap them on the shoulder when you get back. And here's a pro tip: Write your name and telephone number in your kayak with a permanent marker. You can even get a free sticker from the American Canoe Association. The Coast Guard loves it when you label your kayak because it cuts down on false alarms. It's also the best way to get your boat back if it drifts off the dock.

Finally, check the weather report. Treat the forecast as the best case. If it calls for sunny and clear conditions, great. But when you arrive at your launch point, assess the conditions and make sure the actual weather matches the forecast and your ability. Is the wind heavier than you expected? Are the waves bigger than you can handle? Making good choices about when and where to paddle can mean the difference between a fun day on the water and needing to be rescued.

Remember that conditions can vary drastically from one location to another, and from day to day. If the waves look too big, there may be a protected place to paddle nearby that would be less challenging and more fun. A little bit of research and flexibility can save the day. Don't forget to wear your life jacket. And remember: "Be smart, be safe, and Have fun."

How a canoe works in water

Before you put your canoe in the water and start paddling, it might help to understand how a canoe works within the water. This short video covers the basics of water pressure on a canoe hull and explains why steering is always performed at the stern of the canoe. A simple primer, but worth watching for the quick and easy lesson.
http://www.paddling.net/guidelines/

Before you put your canoe in the water and start paddling, you need to understand how a canoe works within the water. Think of the front of your canoe as an arrow piercing through the water. As it travels forward, the bow splits the water. As a result, you get water pressure on either side of the canoe's bow, which causes waves.

As the water flows past the mid, or widest point of the canoe, and towards the narrowing stern, the pressure on the hull of the canoe eases off, as you can see by the absence of any waves. What this means is, as the canoe moves through the water, the bow is pinned from the frontal resistance of the water, while the stern is free to move from side to side. Therefore, steering is always performed at the stern. Strokes at the bow of the canoe can only really assist a turn after it's been initiated.

Loading and transporting your boat -- roof racks and tie downs

You've got your new boat. Now let's load it up and get out on the water

Roof racks & tie downs: A good roof rack or sport trailer and some cam straps are the best way to transport a kayak or canoe. Many cars with factory luggage racks may also work but be sure to check on the maximum capacity rating in your owner's manual first. For ultimate security, it's always a good idea to use appropriate bow and stern tie downs secured to the bumper or frame of your car or trailer.

Never use shock cord or bungees to secure boats or gear on a rack. Padding on the bars or appropriate saddles or J-cradles help keep the hull from deforming, especially in warm climates. Racking the boat upside down also helps, especially with canoes. If your boat hangs over the rear of the car more than four feet, a red flag is required.

Carrying your boat: Now that you've arrived at your destination, you need to get the boat to the water. Tandem carries work best. The grab toggles at the ends of the boat make this a snap. Solo carries are a bit more challenging and take some practice. Balancing the boat is the key with any solo carry and be sure to lift the boat with your legs, not your back.

Many people use accessory wheels that turn the boat into a trailer. Wheeling the boat to the water becomes straightforward and puts the weight of the boat on the wheels, not your body. These wheels can break down and store in the boat while you're paddling, or they can go back in your car.

Pre-launch: Before hitting the water, it's a good idea to adjust any foot braces or seat components that you need adjusted. You will want to stow any gear that you plan on taking with you. Remember to keep things you may need close at hand. Waterproof bags for cell phones or keys are a great thing to have on hand as well.

Launch tips: Launching your boat from a variety of shoreline situations or docks can be challenging, but with a little practice it can be done in almost any waterside scenario. To launch a sit-in kayak from a gradual sloping beach, put the boat in the water stern first and make sure the boat is floating. Then simply straddle the kayak, sit down, bring your legs in, placing your feet on the foot braces and your knees against the knee pads. Then, push off in reverse.

For a sit on top kayak, float the boat, wade out to one side of the boat, and simply sit down. Swing your legs on board and you're good to go.

For a canoe, it's sometimes easiest to position the boat sideways to the shoreline and get in one at a time. This can also work perpendicular to the shoreline, but make sure the water is deep enough.

When one end of the boat is stuck on high ground, the boat can be very tippy. From a dock or a rocky shoreline, you'll need to position any boat parallel to the dock or shoreline and then carefully climb on board while steadying the boat. Keep your center of gravity as low as possible.

Paddle position: In any of these techniques, it's best to place your paddle in a position where you'll be able to get to it once you're settled into the boat. Using your paddle as a crutch or kickstand may damage or break your paddle.

When landing on shore, it's just the opposite of launching. Whichever technique you used getting into the boat will work in the reverse getting out. Wet feet are part of the game of boating.

Gear placement in the boat: Your boat was designed to work best when it's balanced, or the nautical term, "trimmed". Make sure it's trimmed forward to back and side to side. If you're carrying extra gear, or in the case of a tandem or canoe where two paddlers are involved, it's important to position the weight so it's evenly distributed. A stern that is a little bit heavy is okay, but never have your bow heavy. This can make the boat hard to control, especially in the wind. With canoes, it's sometimes necessary to carry extra weight, like a large water jug, to help balance out paddlers when their size difference is great.

Safe & smart: Now you're ready to enjoy your time on the water. And remember to always use good judgment and not be out in conditions that might capsize you. Knowing your local waterway and possible dangers that exist is key to good safety on the water.

Canoe storage and care

Winter is a good time to inspect, clean and repair your canoe. With proper care and storage, a canoe will last a lifetime.

Storage: The ideal way to store a canoe is upside down, supported by the gunwales. If you're going to store your canoe outside, you're going to want to protect it from the sun. And this doesn't mean throwing a tarp over it. Because the tarp will trap heat and moisture and do more harm than good.

To keep wooden canoes looking great use a car or boat wax on the outside. For plastic canoes, use a UV protection product to help shield the plastic from the sun's damaging rays.

Wood trim: Wood is sometimes used as trim for gunwales or seating. Now if they're varnished, all they will require is a light sanding and re-coating every few years. But if they're oiled, you're going to have to retreat them at least once a year.

Wood & canvas care: Wood and canvas canoes need a lot more care. The best way to keep a wood or canvas canoe in good shape is to avoid tracking in mud or sand because the grit will wear away the finish. For that reason, it's a good idea to keep the boat as clean as possible, and when you do get scratches, you'll want to seal them up right way.

Canoe or kayak, which is best for you?

Kayaks now outnumber canoes on almost every waterway. Why are they suddenly so popular?

Some years ago, I guided a group of teens on a canoe trip in Minnesota's Boundary Waters. As we rounded a point, a yellow kayak darted toward us. The paddler - a young woman in her twenties - flashed a smile, then poured on the coal. In a flash she was gone.

The kids, in their banged-up aluminum canoes, were spell-bound. "Why can't we have those?" they pleaded. I just grinned and said, "You'll see."

Twenty minutes later, we reached a portage that bypassed a beaver dam. We had to balance on sinking logs to unload the canoes; everyone was up to their knees in muck. The trail soon deteriorated into a swamp and we began a game of musical canoes-one minute we paddled; the next we waded and dragged. Finally, we came to a dead end and began a mucky portage that ran a quarter mile.

Shortly, we came upon the kayak. It was stuffed into some brush and there was a heap of colorful dry bags (gear bags) nearby. The young woman was sitting silently on a boulder.

"How do you like your kayak?" I teased. She looked up scornfully and replied: "Wanna trade boats?"

We all pitched in and carried her gear, sharing conversation along the way. She said her parents owned a cabin on the Flambeau River in northern Wisconsin, and that's where she did most of her kayaking. She figured the big water of the Flambeau flowage would be good preparation for the Boundary Waters.

"I didn't figure on the portages," she moaned. "It was a nightmare getting in and out of my kayak so many times-stuffing and unstuffing bags at every portage. And my (double) paddle kept catching in the brush on the beaver stream. It was awful!"

Most kayakers I know will readily admit that their boats are out of place in Minnesota and Wisconsin lake country, especially in areas where there are portages. If you've ever carried a kayak very far, you know why! If you fit the craft with a canoe-style carrying yoke, your head will be buried deep in the cockpit, with no view of the road ahead. This may be acceptable on a clear trail, but not on a tortuous one where one misstep may mean a broken leg.

Knowledgeable kayakers generally scorn yokes. Instead, they hoist their kayak on to one shoulder or drag it behind them like a dog on a leash. Neither method works well for very long.

Given these handicaps, why are so many paddlers choosing kayaks over canoes? Scott Hamstra of the Rutabaga store (the Midwest's largest paddle sports shop) in Madison, Wisconsin, suggests why:

"People who like to go alone find that a kayak is easier to paddle and control than a canoe. It takes some skill to paddle a canoe in a straight line, especially if you don't have a partner."

To understand the ageless lure of the canoe, let's explode some popular myths.

• **Myth:** ***You need more skill to paddle a canoe than a kayak***.
No way! This myth persists because a novice can look good in a kayak on a mirror-calm lake, whereas it takes some skill to maneuver a canoe. But wind and waves change everything! You're on your own in a solo kayak--there is no partner to help maintain the course or keep up steam. You need a proper "paddle brace" to stay upright in big waves, plus a reliable "Eskimo roll" to right yourself if you do capsize. You won't master these advanced techniques in a single season!

Now, play the same scenario in a well-designed double-canoe. You have two synchronized engines running with equal power applied to both sides of the canoe. If things get dicey, just point your craft into the wind and power ahead.

The bottom line is that a beginning kayaker can get around fine on calm water, without instruction. Canoeists need some training. Without it, they may just go around in circles until they learn to paddle right. The learning curve for kayaks is gentle at the start but it gets steeper as you learn. With canoes, it's just the opposite--which brings us back to our original premise that it takes less time to "look good" in a kayak than in a canoe. Ultimately, it takes equal discipline to master either craft.

• **Myth:** ***Kayaks are faster than canoes***.
No way. Canoes and kayaks are both displacement hulls; their top speed is a function of their length. The longer the boat, the faster it will go. You can compute the maximum speed by applying this over-simplified formula: Speed = 1.55 times the square root of the water-line length, measured in feet. Thus, an 18-foot canoe or kayak will peak out at about 6.6 miles per hour while a 15-footer will run roughly 6.0 miles per hour. Don't confuse top speed with *ease-of-paddling*! The formula tells you only the maximum hull speed the boat can attain, not the amount of effort required to get it there. A fat canoe and a skinny kayak of equal length can achieve the same top speed. But the narrow kayak will paddle more easily because it has less wetted surface area (and therefore, less friction) than the canoe.

Ease-of-paddling (not superior speed) is a major reason why some people prefer kayaks to canoes.

• **Myth:** ***A double paddle is easier to use than a single paddle.***
No, but it is more efficient, simply because the effort used to return one blade to the catch position is used to power the opposite blade. But a double paddle is twice as heavy as a single canoe paddle, so you lift more with every stroke. And wind attacks the air-borne blade, so you have to "feather" it on the return stroke, which requires rotating the shaft each time. Over the long haul, this can cause tendonitis. That's why some paddlers choose non-directional blades that can't be feathered.

• **Myth:** ***A kayak is more comfortable than a canoe.***
Essentially, you wear a kayak. Once "shoe-horned" into the hull, you're stuck there. Downed trees, portages and even docks pose problems getting in and out, especially if you're not athletic. Grandma won't like your kayak, and neither will your dog.

The seating position is cramped, and your legs fall asleep. Water gets by the paddle drip rings and runs down your arms and into your lap. Of course, you can wear a spray skirt and a dry suit top. But bare arms and breathability are precious in the summer heat.

The higher seating (or kneeling) position of the canoe also permits a better view of the road ahead. You'll see wildlife better from the seat of a canoe, and have a more stable platform from which to fish or photograph.

In summary, choose a craft that fits your needs. Try it before you buy it - if it makes you smile it's right for you!

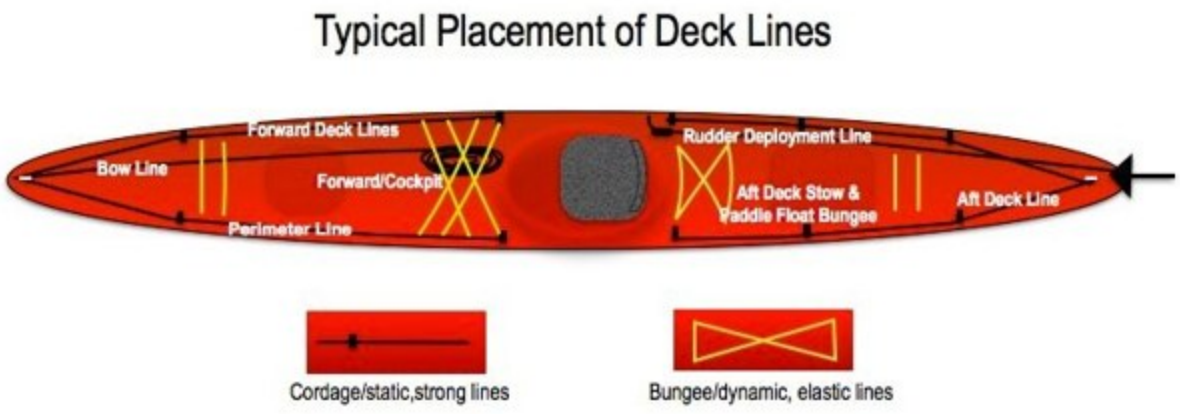
A canoe or kayak is usually a wise investment. Low-to-mid-priced models will retain about 75 percent of their original value after five years, if they are well-maintained. High end boats often appreciate! Remember this, if your dream boat costs more than you had planned to pay.

Deck lines & rigging

By the most basic definition, any form of rope or cordage on a vessel is referred to as a "line". Prefaced with "deck", the terms "deck line" or "deck lines" are common phrases used throughout the paddling world.

While lines on canoes are primarily those used for anchors or bow lines, the deck of most kayaks is a webwork of elastic and static cordage of varying lengths and connections - all arranged in a network of utility to provide grab-holds, secure gear to the deck, tether hatches (and sometimes paddles), operate rudders and so forth.

Stowing gear on deck is a debatable issue among paddlers. Some will argue that careful placement, properly trimmed items atop you deck is a necessary method for hauling large amounts of gear on extended trips. Others will suggest better assessment of gear needs and warn of the disadvantages of a top-heavy, wind-catching load. For smaller, quick-to-get-to items, however, being snuggly secure within arm's reach on the deck of a kayak works for most paddlers. Here are the basic functions of different types of deck line configurations:



- **Perimeter deck Line:** A line running along the outer edge of the deck, secured snuggly to the deck but loose enough to reach under and hook with one's fingers. Useful for grabbing on anywhere along the boat and holding on to the kayak in a capsize or rescue situation.
- **On-deck gear stowage:** Typically, an "X" or "II" pattern of bungee cords aligned parallel to the forward cockpit rim or seating area. Useful for easily accessible stowing of water bottles, small gear pouches and other items within reach for intermittent retrieval.
- **Spare gear access lines:** Installed to let you carry specific pieces of gear such as a breakdown spare paddle on deck (either fore or aft), paddle float, etc.
- **Bow line:** Attached to the bow for mooring, or otherwise securing the kayak via a lead line off the bow. I've tied a bowline knot at the end of my bow line, so I have a ready-made loop for my immediate use.
- **Rudder line:** Section of line that enables paddler to raise/lower rudder from cockpit area.
- **Paddle Float/Gear Stow:** Usually the "X" pattern right behind the cockpit used to secure a paddle blade during a paddle float rescue. It also serves as another deck-top stow area for small, miscellaneous items.
- **Hatch cover tether:** A short leash-like section of line that tethers the hatch cover to the kayak and prevents it from being lost when removed from hatch rim.
- **Other lines:** When fishing, some paddlers like to use an anchor to keep their kayaks from drifting. There are several ways to secure an anchor line to a kayak, either using special anchor line clam-cleats or via a reinforced deck loop, other similar clips or a quick-release knot! The anchor and coiled line can be stowed under the forward deck (bungee) lines on the kayak.

Line material and sizes: Two types of cordage are used for deck lines: Static lines are stable; they provide firm, solid support and won't stretch. Perimeter deck lines, anchor lines, etc. would be considered static lines. Dynamic lines are elastic, they do stretch or give. Bungee cords are dynamic, stretching to hold gear in place like a rubber band. They each have their place of utility along the deck of a kayak.

Typically deck line cordage for kayaks come in two diameters: 4mm (~3/16) and 5mm (~1/4"). You can find nylon cordage to use as deck line at most hardware stores and it will probably work fine. Personally, I always try to buy cordage I am going to use in a marine environment

from a marine supply outlet. Whether you are buying new cordage for deck lines or replacing old, frayed or otherwise weakened cordage, just make sure you go the quality route!

Special uses / perimeter line: Boats can be slippery, hands can be numb, the cockpit rim unreachable - for whatever reason. Being able to grab anywhere along your kayak can be a critical move during a capsize or rescue. A solid grab line attached along the outside edge/perimeter of your kayak will provide you with a reliable emergency handhold/grab line along the entire length of your boat.

This line should be large enough to provide a solid finger hold without cutting into your hand. You fingers should be able to slip under the line yet it should also be secure enough on the deck so that it doesn't sag or otherwise form loops or catches that could entrap you as you scramble along or tumble over the deck during an exit or failed roll - whatever.

Usually the perimeter line is secured to the deck at intervals, either through recesses or extended deck loops through which the line has been fed - all the way around the boat, or in two large sections outlining the fore and aft sections beyond your cockpit. Many manufacturers will use reflective line (3M ScotchLite, for instance) that has thin strips of reflective material interwoven throughout the fibers to provide a modest but effective line of visibility (it glows when a distant light shines on it - helpful for being seen in the dark).

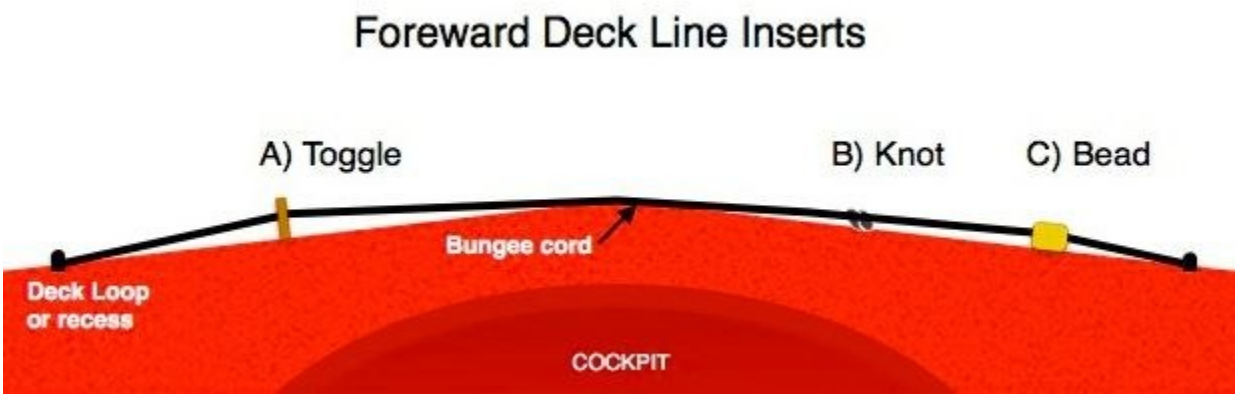

Reflective perimeter line on a kayak

Special uses / deck beads and toggles: Stowing gear on decks of kayaks was a vital factor for ancient paddlers who hunted and fished from their small crafts. Harpoon shafts and coiled lines, seal float bladders, atlatls and other implements had to be secured within easy reach by the paddler. Not only did the deck line have to hold the tool tightly, the paddler had to quickly stow one implement to retrieve another.

To be effective, a deck line had to hold the gear securely - it had to be tight against the deck. That creates a problem - by being so taunt it is hard to catch the line in order to pry it up to fit and pass the tip or edge of an implement under for secure stowage.

Natives used toggles (elongated pieces of wood or bone with a hole drilled through its side) that were threaded in along static deck lines. The toggle raised the line slightly above the surface of the deck. This allowed the line to remain taunt while creating a space between the deck and the line. Sometimes a bone bead was fed along the line to create this gap. A technique based on that

same deck bead principle involves tying a large knot (an in-line stopper knot- see below) that effectively creates a raised gap in the line.

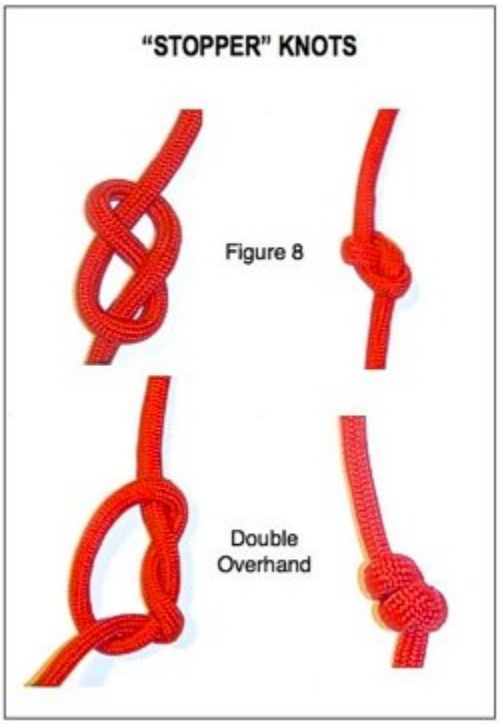


Special uses / bungee cords: Elastic bungee cords perform a variety of tasks throughout a kayak, stem to stern, interior and exterior. Any time a secure but flexible grab is needed, a bungee cord usually comes to the rescue.

Most kayaks offer the conventional "X" or "XX" pattern on the foredeck. Another popular arrangement is the 'II" or "III" alignment. The size of the bungee and the width of the X or spacing between the II seems to be the limiting factor on which one works best.

The "X" configuration behind the cockpit is used for securing a paddle in a paddle float rescue. Sometimes the "X" is strengthened by adding a bungee segment across the top and bottom of the "X" as well - and often doubled to provide a better hold as stress is put on the paddle.

Stopper knots: Oftentimes the end of a line is threaded through a loop to secure/anchor one end of a network. That line can be tied or enlarged so it won't slip back through the opening in the loop or clip or even slip out of the knot tied to hold it all together. A stopper knot is simply a knot tied to the end of a line to prevent that end from slipping back through a bend in the line or other opening. They are especially effective in securing both ends of a bungee configuration as you can stretch the end, tie the knot and let go - the tension and the knot work together to make it a secure, clean fit.



Two common stopper knots are the double overhand and the figure 8. The former is simply a regular overhand knot with an extra turn through the loop before closing it together. The figure-8 is basically a crossover overhand that looks like an "8" when tied properly. Both create an enlarged knot at the end of the rope preventing slippage back through the opening.

These two knots can also be used in line to raise the tight line up off the deck enough to create a gap for the tip of a gear item or you finger to catch so it can be slid under the deck line.

Securing lines: Lines are guided along decks using recessed deck fittings or inserts. There are also many different deck clips (stainless steel, molded poly' or nylon) that help re-direct lines across the decks or gather/disperse lines as needed around/to other deck fittings and features. (See my "Clips, Clamps and Cleats" article for more about deck hardware). You can easily create your own array of deck lines by installing addition clips and loops yourself. It's important to use stiffeners and water sealants when applying to the thin deck of a kayak.

The most important thing to remember about deck lines is that they should never compromise the safe use of your kayak. No interaction with any line or clip - whether from being entangled on sagging loops on the outside to being caught on excessively long bolt/nut stems protruding under the deck or loose rudder/foot brace cords inside your cockpit - should jeopardize a quick exit when necessary.

Check your deck lines periodically and replace them with the appropriate size and "action" you will need. Remember, too, that bungees are great for securing loads quickly but do have weight-bearing limitations. Static lines are stronger but require a good knot or fastening system to remain firm.

Don't forget to include a few lengths of dynamic and static cordage in your repair kit, along with spare deck hardware and the tools to make any emergency repairs or replacements while out paddling

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Dressing for summer paddling

There is nothing like paddling a river or lake on a bright sunny day. And there is nothing like the sunburn you can get from being on the water too long with too little sun protection.

Most people dress for a sunny and hot day with shorts and short-sleeve shirts. That works for a short while on the water, but in the long run it’s detrimental to a fun day of paddling.

The more skin you have exposed, the easier it is for the sun to get you overheated and sunburned. You are not only dealing with the sun shining down on you but reflecting off the water and your canoe or kayak. That’s a lot of sun rays.

That’s why it makes more sense to wear light-weight clothing, long sleeved shirts and long pants. Breathable and quick drying clothes work best. If it gets too hot, splash some water on your clothes and the evaporation will cool you down. Don’t wear a thick long pants (like jeans) that take forever to dry. Wearing soggy heavy pants really cut down on your paddling comfort.

Of course, you need water-proof sunscreen and use it often while on the water. Wear a wide-brimmed hat to provide shade for you face. If you are in a canoe or sit-on-top kayak it’s easy to burn the top of your feet. Ouch!

Even shoes, you know, keeping the tops of your feet covered up, because I tell you what, getting the tops of your feet burned is miserable. So, something that's breathable, nice and light but covering as much skin as possible.

I always carry one or two cotton kerchiefs (one around my neck or on my head). You can easily dip them in the water and wear them as head and neck coolers. Again, it’s the evaporation trick. The kerchiefs have other uses: wash cloth, hair band, emergency bandage, flag, etc.

When you hit the water and the sun is bright and hot, remember to dress for comfort and sun protection. Do so, and your paddle trip will be fun and safe.

Fall is a great time to paddle our rivers

Fall is a beautiful time to enjoy the Chemung River in Mark Twain Country. The trees are ablaze with colors reflecting off the water. The temperatures are comfortable. The mosquitoes and gnats are long gone. The crisp fragrances of autumn combine with the sights and sounds of wildlife to make for a gorgeous float and commune with nature.

The 45-mile Chemung River flows by farmlands, steep shale cliffs, forests, meadows and several towns and cities. The river is rich in history, passing by former Native American villages, a Civil War Prison Camp and the locations of some of area’s first settlers.

Mark Twain spent seven summers in Elmira writing his greatest novels. It’s a good bet that he visited the river and sought its inspiration as he wrote “Life on the Mississippi” and the “Adventures of Huckleberry Finn.”

The shallow Chemung River is easy to paddle – great for beginning or novice boaters. There are 10 public boat launches and plenty of beautiful places to come ashore to picnic, take nature photos or to relax in the grass in the warm sun and watch the river flow.

With so many boat launches you can paddle for few hours or all day.

And let’s not forget the health benefits. Paddling is a low-impact sport and the perfect activity to strengthen and define your upper body. Paddling a kayak burns about 342 calories per hour.

River side trails and levees make for great hiking and cycling along the river. Best of all, the river is free of charge, open 24/7 and you don’t need reservations.

How to buy a good used canoe

Canoes depreciate about ten percent when they leave the store and another ten percent when they get their first scratch. The downward spiral continues as dings pile up. Age of the craft means nothing. Condition is everything!

In time, even the best kept canoe will incur some nicks that will drive its value down. You'll save big if you buy a good used canoe and let someone else take the hits.

Be aware that there's an inverse relationship between high performance (paddling pleasure!) and durability. Lightweight, fine-lined Kevlar composite canoes are more easily damaged than Royalex or polyethylene craft. But they are easier to repair. Indeed, a badly damaged composite canoe can - in a few hours - usually be repaired to cosmetic new. Royalex and aluminum canoes mend solid, but the patch is a glaring reminder of the rock you hit. A badly damaged polyethylene canoe is best destroyed. (You'll find detailed repair procedures for all types of canoes in my book, Expedition Canoeing).

How to find your dream boat

Research The best canoes are not advertised in newspapers. They're sold by word-of-mouth and listed in canoe club publications, and on web-sites like Paddling.net.

Is it safe to buy a used canoe on the strength of an ad? Usually, yes.
Selling a good canoe is like parting with a vintage Porsche that you've driven for years. Accomplished paddlers love their boats, even those they are about to part with. With rare exceptions, they'll tell you the truth.

Transport tips Suppose you buy a canoe in Minnesota and live in Elmire. Isn't it frightfully expensive to ship a canoe from Viking land to the Keystone state? Yes and no.
Some small transfer companies will carry canoes on a "space available" basis. But to keep the cost down, you must be willing to accept delivery at a place that's convenient to the trucker - and it probably won't be your home. I've had two canoes shipped to me by truck: in each case the charge was under 150 dollars. I once bought a canoe that came by rail. Transit time was 27 days and the shipping cost was 75 dollars.

Option #2: Contact your local canoe dealer and ask if any of his suppliers also deliver canoes to the state where your used canoe is located. Companies that have their own delivery trucks may drop ten canoes in Harrisburg, PA, fifteen in Chicago, twelve in Madison, Wisconsin, then finish out in Minneapolis. It's unprofitable to dead-head back to the factory so they often haul a competitor's boats to retailers which are en-route to their point of origin. If there's space on their trailer - and they're going your way - you may be able to work a deal.

Pricing A good, used canoe is the way to go if you're on a budget. Twelve hundred dollars will buy an exquisite Kevlar cruiser that will turn heads. $750 is a fair price for state-of-the-art wood railed Royalex. Figure $200 less if the boat has plastic or aluminum trim. Four hundred is reasonable for well-maintained polyethylene.

If these prices seem high, consider that someone else has absorbed all the depreciation. Do a little fix up work and five years down the road you will probably be able to sell your canoe for more than you paid for it!

How to do a J-stroke

The J-Stroke is a version of the Forward Stroke that gets used by both solo and tandem stern paddlers because it's the most effective way to keep your boat going in a straight line while keeping your momentum.

Using regular forward strokes, you'll notice that your canoe turns a little to the offside with each one you take. The J-Stroke fixes this issue by adding a small pry at the end of power phase of the Forward Stroke. Without it you'll probably find yourself switching sides with your paddle or taking aggressive pry strokes which may correct your course, but they'll also slow you down.

Technique
The J-Stroke starts with your regular Forward Stroke, but instead of finishing it normally, you'll start a pry when the shaft reaches a point beside your knee. This pry corrects for any turning momentum created by your Forward Stroke.

To initiate this pry twist your control hand so that your thumb is pointing towards the bow of the boat. At the same time allow the shaft to rotate in your other hand by slightly loosening your grip. With the power face of your paddle now facing away from you, pull your control hand inward and over your onside knee while bracing the paddle against the gunwale with your shaft hand. This inward motion will pry your blade off the gunwale and away from the canoe. With your course corrected, you're now ready for your next Forward Stroke.

Although it will take practice, before long you'll find J-Stroke blends from one Forward Stroke into the next; this will allow your canoe to carve in a straight line across the water.

How to launch a canoe solo

Launching First, you want to make sure your canoe is down and, in the water, as much as possible. I'm going to slide the canoe out, with the paddle in my hand and a hand on the canoe.

Next, reach across to the outside gunnel - focus on keeping your weight low and over the center of the boat. Once you have the canoe stable, step into the middle of the canoe, keeping your weight very low, until you feel stable. Then, take your other foot and place it in the center of the canoe, and get into the kneeling position. At this point, what's left of the canoe on the shore, you can push off and be on my way.

Landing One of the best ways to do this is approach the shore sideways, and again, keeping your weight low, slowly step out of the canoe. Don't let go of your canoe, or it might blow away.

How to lift and carry a canoe

Lifting and carrying anything 16 feet long is always going to pose some problems. With that said, canoes are surprisingly easy to move around. We're going to look at ways for both one person and two people to lift and carry a canoe, starting with the one-person lift.

When lifting a solo canoe, if you're right-handed, you'll start on the left side of the canoe, and if you're left-handed, you'll start on the right side. Start at the center part of the canoe and grab the closest gunnel with your hands about shoulder width apart. Now, bend your knees and lift the canoe onto your thighs. Your legs should now be bearing the weight of the canoe. With a gentle rocking motion, use the leg closest to the stern of the canoe to lift the far gunnel so that you can grab it with the hand closest to the bow. You should now be holding the near gunnel with your stern side hand. The far gunnel will be the hand closest to the bow.

To get the canoe over your head and the yoke on your shoulders, you'll start with a light rocking motion and then lightly kick the canoe up with your knee as you lift and flip the canoe. Make sure that as you're doing this, duck under the gunnel and rotate your stance so that you finish facing the bow. You can then gently drop the yoke onto your shoulders.

If you're doing this properly, you won't feel any strain on your back as it's your legs that will be doing all the work.

To put the canoe back down, you'll simply reverse the lift. With a good grip on the gunwales, bend your knees bounce the canoe off your shoulders and rotate your stance to face the canoe as you flip it back down onto your thighs. A little trick that can make both lifting and dropping the canoe easier in the beginning is to keep the stern end of the canoe on the ground. This helps keep the canoe balanced as you flip it.

A two-person lift is very similar to the one person lift except that one paddler will position themselves at the bow thwart and the other will be at the stern thwart, or seat. From this position, you'll use the exact same lifting technique that we just looked at, only you'll do it in unison. Once the canoe is above your heads, the person up front will walk their hands forward

and rest their bow on their shoulder. The person in the back will drop the stern thwart or seat onto their shoulders as if it were a yoke. Something to keep in mind when setting up a two-person lift is that the bow person gets the lighter end and it's going to be a lot easier for them to see where they're going.

If lifting and carrying a canoe is going to be a real problem, another great option is a canoe cart, although they don't work well on rough terrain. With that said, there are a few important tricks that will make lifting and carrying a canoe a lot easier.

How to paddle backwards in a canoe

Moving backwards in a solo canoe is one of the more challenging things to do. You can't easily see where you're going, and you need to use strokes that you won't use on a regular basis. The most common stroke to use is the reverse J-stroke because the pry at the end of the stroke helps move you in a straight line. You can also use alternating reverse strokes and cross backstrokes to go straight backward, although this combination works best in the beginning when you're accelerating from a still position.

Moving backwards in a tandem canoe is challenging because it involves a full reversal. The bow paddler is now responsible for steering the canoe, which is best done with reverse J-stroke, while the stern paddler simply provides propulsion with reverse strokes. Paddling comfortably backwards in a tandem will take lots of practice, although it certainly isn't a necessary skill. Unless you're in a tight spot, you're best to just pivot around and paddle forward

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How to put a spray skirt on a kayak

Spray skirts are made from neoprene and are designed to keep water out of the inside of your kayak so that you keep floating. The skirt fits securely around the cockpit rim and has a pull cord or grab loop that stays on the outside of your cockpit so you can pull the skirt off if you want to get out.

Wearing a spray skirt Most women find it easiest to step into the skirt and pull it up over their hips. It's important to accept that there's no graceful way of pulling the small tunnel over your hips, you'll get used to it. You want the tunnel to fit snugly around your waist.

Tips for fit Putting your spray skirt over your cockpit for the first time can be one of the most frustrating things about learning how to kayak. Here are some tips to make it easier: Firstly, when neoprene is dry it shrinks up and becomes stiff so if you dunk your skirt in water it will help it stretch out.

Putting it on So here's the best way to put on your spray skirt. The first thing you want to do is put the back of the skirt on the back of the cockpit rim. So, you must lean back a little bit to make sure that you can get the skirt around the back. Once it's on the back, you want to continue to stretch the skirt forward using your palms and your thumb making sure it's on all around, making sure my grab loop is on the outside, and I'm ready to go.

How to read whitewater

The power of water can be intimidating, especially fast-moving whitewater. Humans tend to fear what we don't understand and when we first come to a swiftly flowing river it appears chaotic and scary because we don't yet understand the flow of the currents. Once we begin to learn and recognize that currents are made up of certain staple features such as eddies, eddy lines, downstream Vs, rocks, waves and hydraulics pathways begin to open amid the chaos. Even the scariest rapids are made up of these staple features. Recognizing the best path through a rapid boost your confidence and helps you discern if your skills are up to running the line.

Learning to read whitewater takes some time and requires some risk taking. Choosing and running your own line through a rapid is one of the best ways to learn how to read water. When first learning it's normal to misread the water and end up somewhere in the rapid that isn't that much fun. Therefore, it's important to learn how to read whitewater on easy rivers first and with a qualified whitewater kayak instructor. Here are some tips that can help supplement your instruction and help people who are paddling recreational kayaks in very easy-going, slow moving current.

The Downstream V The most basic and important feature to look for in current is the 'Downstream V.' Dark or 'green' water fills the middle of the 'V' and whitewater forms the edges of the 'V.' You'll literally see a loosely formed V in the water with the point of the V pointing downstream. The V shows you the deepest and usually the best route to take through a rapid, especially in class II and III rapids. Current that is dark is deep and usually obstacle-free. Whitewater is formed by water flowing over rocks or debris in the riverbed and indicates obstacles in the river. This doesn't mean that whitewater equals shallow water – some big rivers like the Grand Canyon – have whitewater that is very deep. The V shows you the obstacle-free and deepest entrance to the rapid. The V also usually leads into fun, friendly waves. The V can be described by some as a 'tongue' of water flowing into a rapid.

At first it will be easier to recognize downstream Vs from above, so you'll want to get out of your kayak and look at them from shore. Eventually it will get easier and easier to see them from your kayak sitting in the water. At times you'll have to get very close to the top of the rapid before you see the downstream V. If you're approaching a rapid and you're not sure if you can see the V and you're nervous about running the rapid blind, then it's always best to get out and look at it from shore.

Eddies An eddy is a place in a river where the current flows upstream. This happens when the downstream current flows around an obstacle such as a rock, meets and is pushed back upstream. The same can happen when there is a point of land that juts out into the river. The current is deflected by the point of land and creates a space for current to fill in by flowing back upstream.

Eddies are great places to stop, rest or get in and out of the river. In slow moving rivers the current in the eddies flows very slowly or is almost stagnant so it's easy to rest. As you move into faster flowing rivers the current in eddies flows much faster and can feel chaotic. Recognizing eddies is important because they offer a place for respite if you need a break from the whitewater. A qualified kayak instructor can help you recognize and learn how to efficiently get in and out of eddies.

Eddy lines an eddy line is a swirly line at the edge of eddies where the current flowing downstream meets the current flowing upstream. Eddy lines are some of the most unstable currents in the river for kayaks. Some eddy lines are well defined and easy to recognize while others are more ambiguous. In slow moving current eddy lines aren't a big deal, but once you get into fast moving water, you'll want to learn proper technique for crossing eddy lines so that you don't flip over.

Rocks Rocks are an integral part of a river. They're everywhere in the current and on shore so it's important to make friends with rocks if you kayak or are planning to learn how to kayak. Sometimes rocks are above the current in which case you want to try to avoid them. Remember that you must anticipate when you want to avoid a rock in a kayak because the current is continually moving you toward the rock. Once you're right at the rock it's too late to avoid it so it's important to look ahead and make moves early.

The key to avoiding rocks is to look at where you want to go and not at the rock! If you do find yourself up against a rock defy your instincts and lean into the rock. By leaning into the rock, you allow yourself to stabilize and the current will naturally push you around the rock. If you lean away from the rock, you'll expose the upstream edge of your kayak to the current that will act on your boat to flip you over.

If rocks are just under the surface, then I encourage my beginner students to paddler right over them. This way you'll keep your speed and your stability. When paddlers try to get around a rock at the last minute, they often end up going over the rock sideways which is much more unstable.

Hydraulics Rocks under the surface of the water create waves and hydraulics. Water flows over the rocks, drops and then comes up forcefully mixing with the air and creating whitewater. Waves are formed when there is a lot of water flowing over the rocks. Waves are friendly and fun to run. They do act on your kayak with a force pushing back upstream so it's good to paddle enough so that you maintain a speed that is faster than the current. This will keep you from flipping over.

Hydraulics aren’t as friendly as waves, and even though you can surf a lot of them and have fun, it’s best to avoid them in the beginning. A hydraulic is created when there is a steep drop off the water behind the rock which creates a strong back current flowing upstream feeding the current back into the hydraulic. Hydraulics have large ‘foam piles’ of whitewater flowing back upstream which can help you to recognize them. If you hit the wrong hydraulic it can keep you there until you get tired and must swim out of your kayak. This isn’t any fun so it’s best to avoid them!

Downstream Vs, eddies, eddy lines and rocks are present on all rivers. Learning to recognize them is an important confidence booster and is key to white water kayaking. It’s also nice to understand the current so that you see pathways instead of chaos and if you do see chaos you can avoid it! This article helps to outline the basic features of any river, but it’s no substitute for one on one instruction and experience on an actual river. Seek out instruction from a qualified white-water kayak instructor before venturing out on any fast-flowing river.

How to re-enter a sit-inside kayak on the water

Re-entering a sit-inside kayak is a bit more complicated than re-entering a sit-on-top kayak, because they don't drain themselves like a sit-on-top kayak does. For that reason, it's often easier to tow your boat to shore, where you can empty it and get back in. Therefore sit-inside kayaks are best used very close to shore, unless you've taken a sea kayaking course, or have practiced and are very comfortable re-entering your kayak from the water.

Now first off, something that will make a huge difference if your boat gets swamped, is having a bulkhead in it. Bulkheads are walls that divide the kayak into separate compartments. Not only does this provide you with a relatively dry storage area for gear, but it prevents your kayak from completely filling up with water if you flip, which makes it much easier to re-enter or tow to shore. Some kayaks have a single bulkhead just behind the seat which divides the kayak into two separate compartments, while other kayaks, like touring and sea kayaks, have a second bulkhead just in front of your feet. It divides the kayak into three unique compartments and makes the kayak much easier to deal with when it gets swamped.

The bottom line is that sit-inside kayaks without a bulkhead are very limiting and should only really be used in the shallow water where, if you flip, you can stand up and drag the boat into shore. Assuming your kayak has at least one bulkhead, let's look at how you'll get back into it with help from a friend.

The first order of business is to get the kayak upright. And although you can just grab the kayak and roll it up, if your friend is comfortable and stable in their kayak, they can help you roll the kayak upright and empty some of the water at the same time. The way to do this is have your friend maneuver their kayak perpendicular to the bow of the upside-down kayak. As the swimmer, you'll move to the stern of the kayak. The rescuer will then grab the bow and try and

lift it up and over the cockpit of their kayak, while you, the swimmer, push down on the stern to help lever the bow into the air. The goal here is to dump as much water out as possible and then quickly roll the kayak upright.

To get back into your kayak, your paddling partner will need to help stabilize the kayak for you. To do this, they'll pull the empty kayak alongside theirs and then hold tight and lean their body onto your kayak just in front of the cockpit. Now it's up to you. To get back into your kayak, position yourself alongside it and grab the cockpit rim. Let your legs float to the surface behind you, and then with a powerful kick and push of the arms, haul your chest up and onto the stern deck. Keeping your weight as low as possible, turn your head towards the stern of the kayak and slide your legs into the cockpit. You'll then twist your body and corkscrew your way back into the seat.

Whether you use the boat-over-boat rescue technique to empty out water before you climb back in, you'll still have a fair amount of water in the boat at this point, and so you'll want to head to shore to completely empty the kayak, or you can use a bilge pump.

How to Trim a Canoe

By Kevin Callan

"How's my trim Look?"
Asking another canoeist this question can get some blank stares from novice paddlers. But veteran canoe trippers are aware of the terminology, as well as the importance of checking one another out.

The best way to define trim is to view how much of the boat is in contact with the water, end to end, and which end has more depth under the surface. Trim can be altered by repositioning packs in the boat, and the paddlers as well. Doing so makes a major difference in the performance of the boat.

I find that most of the time you'll want to be slightly bow light, meaning your stern is deeper under the surface then the bow. This can make a huge difference during windy conditions or running rapids. The front glides through the water nicer and steering becomes much easier. Being nose heavy, especially while solo, can be a real challenge. It creates more resistance while propelling through the water. But more importantly, having the bow heavier can force you into a unplanned turn to one side or the other. Just the slightest amount of water piled up on one side of the bow will waver you totally offline.

To trim your boat, make sure you only make slight changes. Big changes may seem more effective at first but can cause major problems with control and stability. By simply moving packs or switching who's in the bow and stern, you can easily make your canoe more seaworthy.

Solo paddlers don't necessarily want to be too bow light. By being slightly off you can help turn the boat quicker by just leaning side to side. You'll want to make sure to be more central in the canoe. If you sit in the stern seat and paddling into the wind, the canoe will be too bow light and end up spinning around uncontrollably. That's why I like a prospector design canoe. They're symmetrical in shape, meaning both ends are the same shape. If you sit in the bow seat and paddle the canoe with the stern going forward, you'll have a much better time keeping the boat trimmed.

So, what if you're on your own and have no one to check your trim. Here's an idea. Take a tennis ball, or even a golf ball, and place it in the bottom of the canoe. Which way it rolls determines your trim.

Tiny tips for wilderness canoe trips

By Cliff Jacobson

Experienced wilderness canoe trippers know that small errors can cause big problems. In my previous article, I wrote about a few of the "little things" that can make or break a trip. Here are a few more for your consideration.

Keep packs tightly closed in camp:
Experts keep their packs tightly sealed while they're in camp. Novices leave pack flaps and waterproof liners wide open so that critters and rain can drop in.

Don't lean paddles against a tree:
Paddles stored flat on the ground can't fall and break. Bent-shaft paddles should be set "blade up"-so the blade won't break if accidentally stepped upon. Don't store paddles under an overturned canoe: animals might gnaw on them or they could be flushed out and lost in a heavy rain (it happened to me!). I keep my expensive paddles alongside my tent.

Keep your axe and saw accessible:
Seconds count if you need to free someone or something from a strainer. Keep these edged tools handy!

Tie up beached canoes:
A high wind can turn a canoe into a kite. Tie to trees or boulders. If there are none, pile rocks on top of your overturned canoe, or leave the canoe upright and place heavy packs or rocks in the belly. This is a common practice on the tundra.

Rigorously attend to the smallest skin cuts:
A tiny cut can become quickly infected in the outdoors. Clean (with soap and water) all wounds immediately; apply Triple Antibiotic ointment (Vaseline works about as well) and cover with a band aid. Re-clean, add ointment and change the band aid every day.

Check (GPS) UTM-programmed waypoints in Latitude/Longitude mode:
Make a numerical error while programming a GPS in UTM mode and you could be thousands of meters off! You won't make mistakes if you check your UTM-programmed waypoints in Latitude/Longitude format. Simply go to the set-up menu of your GPS and choose Latitude/Longitude coordinates. Roughly plot (eyeball 'em) the new coordinates on your map. Are you in the ballpark? If so, switch back to the user-friendly UTM format. If not, check your UTM numbers again!

Take these items into your tent when you retire each night:
• water bottle • pee bottle • rain gear • pepper spray • fire-arms • folding saw
Bert Heep, who worked for Piragis Northwoods Co. in Ely, MN sawed his way to freedom when a tree fell on his tent (and trapped he and his wife inside) in the Boundary Waters Canoe Area.

Respect your PFD:
• Don't store it under an overturned canoe where it could wash away in a storm (it has happened!). Instead, keep it inside your tent.
• Don't sit on your PFD or pile packs upon it.

Use a plastic ground cloth inside your tent!
Tent floors wear and seams eventually leak. A plastic ground cloth placed inside your tent will keep ground water from reaching you. Make the groundsheet a foot larger than your tent all-around so it wraps up the sidewalls a foot or so.

Attach your whistle to a D-ring on your PFD, not to the zipper pull:
Larry Laba, CEO of SOAR boats tells the story of a man who attached his signal whistle to the zipper pull on his life jacket. The man capsized in a huge rapid. When he came up for air, he swallowed the whistle-and nearly choked on it!

Don't wear anything on a cord around your neck:
Some years ago, a friend capsized in an easy rapid. He had a whistle attached to a cord which he

wore around his neck. The man was swept into a strainer and the cord caught on a branch. Fortunately, he was able to use his sheath knife to cut himself free. His neck bore the scar of the encounter for some time.

As you can see, the "devil is in the details". Small errors can cause serious problems when things go wrong.

Fun, safe and enjoyable trip planning

From paddling.net: Written by Cliff Jacobson a professional canoe guide and outfitter for the Science Museum of Minnesota, a wilderness canoeing consultant, and the author of more than a dozen top-selling books on camping and canoeing

We all want to get out there and start having fun. But a little bit of trip planning can really help you avoid mishaps and make your day much safer and more enjoyable.

It’s never a good idea to paddle alone. So, invite a friend or two, or consider joining a trip organized by your local paddling club or shop.

Next, think about how far you want to go. If you paddle the whole time and don’t take a lot of breaks, most beginner kayakers can cover about five miles in half a day. A one-hour paddle would probably cover just a mile or two. Of course, that’s assuming favorable conditions and protected water, like a lake or harbor. That math doesn’t add up when wind or current come into play. In that case, your distance estimates will have to be much shorter.

Now, do your research. Use maps or a guidebook to plan your route. And ask about good trips for beginner kayakers at your local paddling shop. Paddling clubs are another great resource.

After you’ve planned your route, share it with a trusted friend. Give them the four W's: Who, Where, When, and What to do if you don’t return on time or check in as planned.

A good rule of thumb is to tackle the tough stuff first. If you're paddling an out-and-back trip on a river, do the upstream leg first. That way, you can paddle the more difficult direction when you're fresh and full of energy.

If you're in a coastal area, be sure to check the marine forecast. It can be quite different than the inland weather report. And remember that tidal currents vary in speed and direction throughout the day. It's possible to plan your trip so that you're being pushed by the tide in both directions. But if you plan wrong, you could be paddling against the current all day.

Don't forget about the wind. Conditions are often calmest in the morning. But as the land heats up from the sun, the wind usually increases. What starts as a windless day can often change by noon.

Finally, make sure you consider when the sun will set so you have plenty of time to get back before you lose daylight.

The more you plan your paddling trips, the more this will become second nature. So, get out there and practice.
And remember: "Be smart, Be safe, and Have fun."

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Picking your places to paddle

One of the greatest things about kayaking is that there are so many great spots to explore, whether you live near a lake, river, pond, or the ocean. But, one of the most important skills to learn for kayaking is how to choose an appropriate paddling location. By knowing what to look for and what to avoid, you'll stay safe and ensure that your paddling experience is fun for everyone involved.

The ideal kayaking environment has protection from wind and waves, a good access point for launching and landing, lots of places to easily go ashore, and minimal boat traffic.

Look for calm bays or quiet lakes, and riverways without noticeable current. Although it can be tempting to search out the most remote location possible, more populated areas are nice because there will usually be someone around who can lend a hand. This is also why it's important that you don't paddle alone, because there really is safety in numbers when it comes to being out on the water.

When you venture into water that isn't protected from wind and waves, and/or you travel further from shore than you can comfortably swim, you're entering a new world where you'll need to protect yourself and the people you're paddling with.

Take a kayaking course, which teaches you valuable exposed-water rescue skills.

Beware the weather: Although the ocean and large lakes can sometimes be incredibly calm, and do offer an ideal kayaking environment, you need to appreciate how quickly the weather can turn and how dynamic these environments can be. Check the weather forecast before heading out and keep your eyes on the skies for signs of approaching bad weather.

It's also important that you're aware of different takeout points so that you won't feel compelled to challenge deteriorating conditions to get back to your original launch.

The ABCs of kayak instruction

By Anna Levesque

Paddling instruction can help you paddle longer, paddle stronger with less effort, and boost your confidence when it comes to off-water stuff like carrying your boat. Even if you've been paddling for some time and think you know a lot, it's amazing how many tips and techniques you can pick up from a good instructor.

If you haven't considered instruction here are some reasons why you may want to think about signing up for a class. If you feel like paddling is strenuous a good instructor can give you tips on how to make your paddling feel effortless yet powerful. If you have a fear of tipping over a good teacher can work with you to help you get over your fear and have more fun on the water.

And, they can also teach you self-rescue techniques like how to get back into your boat from the water. If you've had a “negative” experience kayaking with a group that didn't feel attentive or supportive, then a good leader can re-charge your confidence and remind you why you started paddling in the first place.

Here are some things to consider when searching out instruction and some tips on what to expect.

When it comes to kayak instruction it's important to distinguish between a demo and a class. The purpose of a demo is to provide a time and space where people can try boats and gear out before they buy. Although some retailers do a great job of bringing in big name instructors to their demos and shows, not all of them do.

Don't expect instruction at a demo, but if it's available that's a bonus. Most paddle sports outfitters have staff on-hand that are qualified to teach, but it doesn't hurt to ask about the staff's teaching experience if you have doubts.

Club outings and community paddles are a fantastic way to meet other paddlers, get out on the water and tap into decent instruction. Be aware that when a club organizes an outing, it may just be to get out and paddle informally and may not be geared toward providing instruction. You'll want to check in with the organizer first to find out if you have the appropriate skill level and if instruction is available.

For basic recreational kayaking you don't need to take a weekend or week-long course like you do in sea or whitewater kayaking. You can easily get all the information and technique that you need to have fun on the water in one day. Some instruction programs include a lesson followed by a fun, informal paddle. In this way you can practice and process the techniques that you learned earlier on in the day while you're out paddling and enjoying the scenery.

A good class will give you instruction on proper stroke technique, edge control, carrying your kayak, sitting properly in your kayak, self-rescue techniques, getting in and out of your kayak, gear suggestions and information on trip planning, safety and gear. If you're interested in learning how to roll your kayak (if you have a touring kayak with a spray skirt) you may need

to look into more discipline-specific courses such as sea kayaking or whitewater kayaking, or you'll want to attend pool rolling sessions hosted by your local kayak club.

If you have specific paddling goals that you want to achieve then scheduling private, one-on-one instruction is a great option. Privates tend to cost more, but they are worth the price because you can learn so much more in a shorter amount of time.

Good kayak instructors are friendly, patient and enthusiastic. They are also attentive to their student's needs (within reason) … There isn't just one right way to teach or learn and it's beneficial to try different techniques to find the one that resonates most with you. A good teacher is adaptable and able to tailor instruction to the student.

Women's specific kayak clinics are wonderful opportunities for female paddlers to learn together, meet new friends and enjoy a highly supportive learning environment that promotes confidence. Most women enjoy listening and sharing and can gain valuable insights, not only from the instructor, but also, from each other's experiences.

No matter what type of instruction you decide on be sure to remain open to possibilities and to what the instructor is saying. A friend of mine once said that it's a good idea to "check your ego at the door." If you knew everything there is to know you wouldn't need any instruction and I know very few, if any, kayakers that know everything there is to know about paddling. Even professional paddlers and instructors are interested in learning.

The other tip I have, especially for female paddlers, is be gentle on yourself when you're learning! It's ok if you don't get the stroke technique perfect the first time you try it. The instructor is giving you feedback to help you, not to point out your shortcomings. Allow yourself time to process and perform the techniques being learned.

This article is reprinted with permission from paddling.net. It has been edited for length. The author, Anna Levesque, is an accomplished international competitor, author, instructor and business owner. Her top accomplishments as a whitewater athlete include a bronze medal at the 2001 World Freestyle Kayak Championships, a spot on the Canadian National Freestyle Team five years in a row, and many top 3 finishes in both Freestyle and Extreme Racing. For more information on her business, Girls at Play, see www.watergirlsatplay.com. For more information on paddling.net, see www.paddling.net

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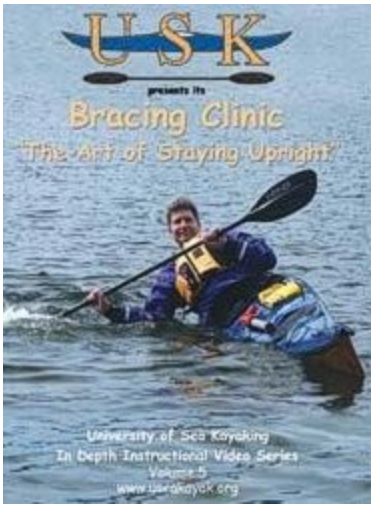
Staying upright in a kayak

By Wayne Horodowich

This article was inspired by the DVD, "USK's Bracing Clinic -The Art Of Staying Upright." The focus of the video is wrapped around one of the core teaching philosophies here at the University of Sea Kayaking, which is: "It is easier to stay upright, than to get upright."



I am a big proponent of learning how to roll. I think rolling, like many other skills, should be an essential part of a paddler's skill set. However, the ability to roll a kayak is not the end all. Everyone misses a roll sooner or later, so it is important to have other capsize recovery techniques at your disposal aside from a roll. If you develop reliable bracing techniques and awareness of capsize environments, you may never need your roll. One of Derek Hutchinson's quotes that made an impression on me is, "Performing a roll is a sign of success. Having to roll is a sign of failure." I spent so much time working on my rolls I didn't care much about my braces, because I knew I would pop up if I went over. However, when one is upside down in their kayak they are not really paddling. They are in capsize recovery mode. If I had spent more time on my bracing skills I wouldn't have gone over so often. As my body has gotten older and unfortunately slower, I freely admit I am glad I changed my attitude about rolling and bracing years ago. Now I feel very confident in my bracing skills and only seem to need my roll when practicing. Don, one of my paddling partners here in Washington says, "Why roll when you can brace?"

Even though a well-executed roll looks effortless, it take a lot more energy to get your body and your kayak upright when performing a roll, compared to just getting your body back over you kayak when you do a brace. One of the frustrations that students face is the process of learning how to brace. Since most people really don't like to capsize it makes it difficult to practice bracing. When students are anxious about capsizing, they seem to stiffen up. When one stiffens up the chance of a capsize increases. It becomes a vicious cycle. In my 25+ years of teaching kayaking, I have observed that most paddlers who capsize do not have a problem getting their paddle into the correct brace position. They do however have difficulty manipulating their body and moving their kayak properly to get back over their balance point.

Knowing the concerns and difficulties that face the average paddler is what we used to develop our bracing clinic. Over the years I have assembled a highly successful, user friendly sequence of drills and techniques to help the paddler develop their body recovery techniques along with proper blade and boat movements in order to learn reliable bracing skills. Rather than starting in the kayak we focus on the blade and body movements without the kayak. When you can perform your skills without the kayak then we add the kayak. At the end of our one-day bracing clinic the participants all feel more comfortable with their bracing skills.

Part of the art of staying upright is being a smart and aware paddler. Even though a slap brace works, why use a brace that has momentary support as compared to a sweep or sculling brace that have longer support times? Your kayak edges farther before your high brace hits water as compared to the amount of edge when you use a low brace. Yet the low brace is underutilized in the paddling community. The sooner you can stop your kayak from going over the less energy

you need to get your body balanced over your kayak. Therefore, paddlers should try to become experts with their low braces.

Another consideration for staying upright is the length of your lever. The longer the lever the greater the support you can get from it. The Greenland paddlers know this and utilize extended paddle techniques all the time in their bracing, rolling and paddling. In recent years the trend has been toward shorter paddles with a high stroke angle when paddling forward. The need for extended paddle techniques becomes greater as paddle get shorter. There are times when one needs greater support and greater power that can only be gotten from a longer paddle.

Changing your paddling style can be a benefit as water conditions change. While a high stroke angle may yield more power, is it the best choice for a forward stroke on a rough and windy day? Would a lower angled, supportive stroke be a better choice for the rougher conditions? One must wonder why the Greenland paddlers developed low angle stroke techniques. I am sure the harsh conditions and strong winds in their environment was a major factor in the evolution in their techniques. Knowing how and when to use different paddling styles is another aspect of the art of staying upright.

As a new paddler matures there are certain lessons they learn. One category of those lessons is what I call "non-thinking capsizes." There are just some things we must learn the hard way. However, as an instructor I have included some of my favorite "non-thinking capsize" moments in the video for the novice paddle with the hopes they heed my advice and start thinking. If not, then they can practice their capsize recovery skills. It is also important to know there are different environments that increase your chance of capsizing. Knowing those environments and how to handle yourself in those conditions is another component of staying upright.

As you can see the "Art of staying upright" is more than just learning a brace. The list of subjects involves the following:

- Understanding boat stability and capsizing
- Knowing the different braces available
- Learning how to control your paddle
- Moving your body correctly
- Coordinating the boat, body and blade movements involved in bracing
- Developing supportive strokes
- Adding extended paddle techniques to your repertoire
- Being aware of bracing environments
- Having drills and exercises to develop and maintain your bracing skills

Part of paddling is developing your own styles and philosophies. I love listening to different instructors; manufacturers, designers and paddlers tell me how they think things should be done. Some of their opinions are similar and some are different. Rather than worrying about who is right, I try to put their opinions into my own sense of order. As you develop your own paddling philosophies, I want you to think about how you wish to spend your energy? Do you want to be paddling or climbing back onto your kayak? Do you want to stay upright and or do

you want to be capsizing? Would you rather be underwater with the fish or stay kayaking on the surface? Would you like to feel comfortable on rough days because your strokes are providing support? If your desire is to stay upright then you need to start putting work into the art of staying upright, which is more than just learning a brace. As always, the choice is yours. I have learned over the years that it is much easier for me to stay upright than to get upright, which is why I have spent so much time working on bracing skills.

In closing, I would like to say that if you are interested in embracing the "Art of staying upright" we have incorporated the above list as the topics in our "Bracing Clinic" video. In usual USK fashion we have packed a lot of information into the video. The video is 1 hour and 51 minutes long and it fits nicely into our "In-Depth Instructional Video Series." Since the video is only available on DVD, we included 52 different chapter stops and a written menu insert in the DVD box to make navigating through the video easier than just using the on screen menus. The practice lists mentioned on the video can also be found on the USK web site for easy download when you go off to practice. You can find the video available at the Paddling.net Store. Our students have found our Bracing Clinic very valuable; I trust you will too.